



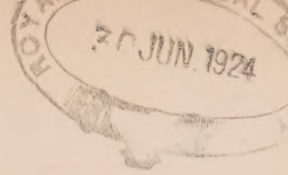
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Division of Economics and History

ECONOMIC AND SOCIAL HISTORY OF THE WORLD WAR

British Series

JAMES T. SHOTWELL, PH.D., LL.D.

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EXPERIMENTS IN STATE CONTROL

At the War Office and the
Ministry of Food

BY

E. M. H. LLOYD

FORMERLY OF THE RAW MATERIALS SECTION, WAR OFFICE,
ASSISTANT SECRETARY, MINISTRY OF FOOD

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EDITOR'S PREFACE

IN the autumn of 1914 when the scientific study of the effects of war upon modern life passed suddenly from theory to history, the Division of Economics and History of the Carnegie Endowment for International Peace proposed to adjust the programme of its researches to the new and altered problems which the War presented. The existing programme, which had been prepared as the result of a conference of economists held at Berne in 1911, and which dealt with the facts then at hand, had just begun to show the quality of its contributions; but for many reasons it could no longer be followed out. A plan was therefore drawn up at the request of the Director of the Division, in which it was proposed by means of an historical survey, to attempt to measure the economic cost of the War and the displacement which it was causing in the processes of civilization. Such an 'Economic and Social History of the World War', it was felt, if undertaken by men of judicial temper and adequate training, might ultimately, by reason of its scientific obligations to truth, furnish data for the forming of sound public opinion, and thus contribute fundamentally toward the aims of an institution dedicated to the cause of international peace.

The need for such an analysis, conceived and executed in the spirit of historical research, was increasingly obvious as the War developed, releasing complex forces of national life not only for the vast process of destruction but also for the stimulation of new capacities for production. This new economic activity, which under normal conditions of peace might have been a gain to society, and the surprising capacity exhibited by the belligerent nations for enduring long and increasing loss—often while presenting the outward semblance of new prosperity—made necessary a reconsideration of the whole field of war economics. A double obligation was therefore placed upon the Division of Economics and History. It was obliged to concentrate its work upon the

problem thus presented, and to study it as a whole ; in other words, to apply to it the tests and disciplines of history. Just as the War itself was a single event, though penetrating by seemingly unconnected ways to the remotest parts of the world, so the analysis of it must be developed according to a plan at once all embracing and yet adjustable to the practical limits of the available data.

During the actual progress of the War, however, the execution of this plan for a scientific and objective study of war economics proved impossible in any large and authoritative way. Incidental studies and surveys of portions of the field could be made and were made under the direction of the Division, but it was impossible to undertake a general history for obvious reasons. In the first place, an authoritative statement of the resources of belligerents bore directly on the conduct of armies in the field. The result was to remove as far as possible from scrutiny those data of the economic life of the countries at war which would ordinarily, in time of peace, be readily available for investigation. In addition to this difficulty of consulting documents, collaborators competent to deal with them were for the most part called into national service in the belligerent countries and so were unavailable for research. The plan for a war history was therefore postponed until conditions should arise which would make possible not only access to essential documents but also the co-operation of economists, historians, and men of affairs in the nations chiefly concerned, whose joint work would not be misunderstood either in purpose or in content.

Upon the termination of the War the Endowment once more took up the original plan, and it was found with but slight modification to be applicable to the situation. Work was begun in the summer and autumn of 1919. In the first place a final conference of the Advisory Board of Economists of the Division of Economics and History was held in Paris, which limited itself to planning a series of short preliminary surveys of special fields. Since, however, the purely preliminary character of such studies was further emphasized by the fact that they were

directed more especially towards those problems which were then fronting Europe as questions of urgency, it was considered best not to treat them as part of the general survey but rather as of contemporary value in the period of war settlement. It was clear that not only could no general programme be laid down *a priori* by this conference as a whole, but that a new and more highly specialized research organization than that already existing would be needed to undertake the Economic and Social History of the War, one based more upon national grounds in the first instance and less upon purely international co-operation. Until the facts of national history could be ascertained, it would be impossible to proceed with comparative analysis ; and the different national histories were themselves of almost baffling intricacy and variety. Consequently the former European Committee of Research was dissolved, and in its place it was decided to erect an Editorial Board in each of the larger countries and to nominate special editors in the smaller ones, who should concentrate, for the present at least, upon their own economic and social war history.

The nomination of these boards by the General Editor was the first step taken in every country where the work has begun. And if any justification was needed for the plan of the Endowment, it at once may be found in the lists of those, distinguished in scholarship or in public affairs, who have accepted the responsibility of editorship. This responsibility is by no means light, involving, as it does, the adaptation of the general editorial plan to the varying demands of national circumstances or methods of work ; and the measure of success attained is due to the generous and earnest co-operation of those in charge in each country.

Once the editorial organization was established there could be little doubt as to the first step which should be taken in each instance toward the actual preparation of the history. Without documents there can be no history. The essential records of the War, local as well as central, have therefore to be preserved and to be made available for research in so far as is compatible with public interest. But this archival task is a very great one, belonging of right to the governments and other owners of historical sources

and not to the historian or economist who proposes to use them. It is an obligation of ownership; for all such documents are public trust. The collaborators on this section of the war history, therefore, working within their own field as researchers, could only survey the situation as they found it and report their findings in the form of guides or manuals; and perhaps, by stimulating a comparison of methods, help to further the adoption of those found to be most practical. In every country, therefore, this was the point of departure for actual work; although special monographs have not been written in every instance.

This first stage of the work upon the war history, dealing with little more than the externals of archives, seemed for a while to exhaust the possibilities of research. And had the plan of the history been limited to research based upon official documents, little more could have been done, for once documents have been labelled 'secret' few government officials can be found with sufficient courage or initiative to break open the seal. Thus vast masses of source material essential for the historian were effectively placed beyond his reach, although much of it was quite harmless from any point of view. While war conditions thus continued to hamper research, and were likely to do so for many years to come, some alternative had to be found.

Fortunately such an alternative was at hand in the narrative, amply supported by documentary evidence, of those who had played some part in the conduct of affairs during the war, or who, as close observers in privileged positions, were able to record from first- or at least second-hand knowledge the economic history of different phases of the Great War, and of its effect upon society. Thus a series of monographs was planned consisting for the most part of unofficial yet authoritative statements, descriptive or historical, which may best be described as about half-way between memoirs and blue-books. These monographs make up the main body of the work assigned so far. They are not limited to contemporary, war-time studies; for the economic history of the war must deal with a longer period than that of the actual fighting. It must cover the years of 'deflation' as well, at least sufficiently

to secure some fairer measure of the economic displacement than is possible in purely contemporary judgements.

With this phase of the work, the editorial problems assumed a new aspect. The series of monographs had to be planned primarily with regard to the availability of contributors, rather than of source material as in the case of most histories; for the contributors themselves controlled the sources. This in turn involved a new attitude towards those two ideals which historians have sought to emphasize, consistency and objectivity. In order to bring out the chief contribution of each writer it was impossible to keep within narrowly logical outlines; facts would have to be repeated in different settings and seen from different angles, and sections included which do not lie within the strict limits of history; and absolute objectivity could not be obtained in every part. Under the stress of controversy or apology, partial views would here and there find their expression. But these views are in some instances an intrinsic part of the history itself, contemporary measurements of facts as significant as the facts with which they deal. Moreover, the work as a whole is planned to furnish its own corrective; and where it does not, others will.

In addition to this monographic treatment of source material, a number of studies by specialists is already in preparation, dealing with technical or limited subjects, historical or statistical. These monographs also partake to some extent of the nature of first-hand material, registering as they do the data of history close enough to the source to permit verification in ways impossible later. But they also belong to that constructive process by which history passes from analysis to synthesis. The process is a long and difficult one, however, and work upon it has only just begun. To quote an apt characterization, in the first stages of a history like this one is only 'picking cotton'. The tangled threads of events have still to be woven into the pattern of history; and for this creative and constructive work different plans and organizations may be needed.

In a work which is the product of so complex and varied co-operation as this, it is impossible to indicate in any but

a most general way the apportionment of responsibility of editors and authors for the contents of the different monographs. For the plan of the History as a whole and its effective execution the General Editor is responsible ; but the arrangement of the detailed programmes of study has been largely the work of the different Editorial Boards and divisional Editors, who have also read the manuscripts prepared under their direction. The acceptance of a monograph in this series, however, does not commit the editors to the opinions or conclusions of the authors. Like other editors, they are asked to vouch for the scientific merit, the appropriateness and usefulness of the volumes admitted to the series ; but the authors are naturally free to make their individual contributions in their own way. In like manner the publication of the monographs does not commit the Endowment to agreement with any specific conclusions which may be expressed therein. The responsibility of the Endowment is to History itself—an obligation not to avoid but to secure and preserve variant narratives and points of view, in so far as they are essential for the understanding of the War as a whole.

J. T. S.

PREFACE

It is difficult to write history, and perhaps more particularly economic history, without allowing a certain bias to creep in. With regard to events so recent and so controversial as the operation of State control during the war, most people would confess to some degree of prejudice. If this book is to be read with an open mind, therefore, it may be well for the author to confess his bias at the outset.

First, I write as a loyal British subject, who was engaged in war service. The amount of prejudice imported by this fact is incalculable, but inevitable.

Secondly, I believed and still believe that to wage war effectively involves replacing private enterprise by collective organization. In this respect I sympathize with those who hold that the necessity for war-time control of life, liberty, and property is an additional reason for abolishing war. Another great war will plunge the world into a sort of military communism, in comparison with which the control exercised during the recent war will seem an Arcadian revel. Personal freedom and private property are condemned by the exigencies of modern war ; and I confess to a prejudice in favour of both.

Thirdly, I am disinclined to admit that *all* the measures of industrial and commercial organization adopted during the war, which are commonly lumped together under the term State control, were merely necessary evils to be got rid of as soon as possible and never to be thought about again. A considerable extension of co-operative and collective enterprise seems to me probable and desirable in times of peace ; and I believe that there is something to be learnt from the experiments in State control during the war which may be of positive value in the difficult times ahead.

In a word, this book is not designed to teach Governments how to wage war ; nor is it intended as a text-book on the abolition of private enterprise. It is meant as a contribution to the economic history of the war—as a record of facts and impressions drawn

from a small but important field of war-time administration. And so far as it is coloured by opinions, they arise out of a belief that even war has its lessons—lessons of social idealism and practical co-operation, which were never so badly needed as in the period of recovery from war.

While, therefore, the author's limited outlook restricts him primarily to matters of administrative policy and technique, an endeavour has been made to contribute to the discussion of the wider problem with which this series is concerned: namely, the psychological and economic reactions of the war upon the normal processes of civilized life. When the time comes for computing the total net cost of the war and its after-effects, what little there is to be set down on the credit side will need to be sifted with microscopic care from the evil consequences that leap at once to the eye; and among those changes and developments that may appear to some to contain the germs of a better order of society a place may perhaps be found for some features, at any rate, of the experiments described in this volume.

The aim of the book is to trace the evolution of war-time controls in certain sections of the War Office and the Ministry of Food. No attempt has been made to give a complete historical record of these controls (some of which, such as wool and food, are more fully dealt with in other monographs in the Series), but rather to present a comparative picture having a fairly wide range.

The first chapter contains a brief sketch of army supply in the past as a background to the work of the Army Contracts Department during the war. Two chapters are devoted to the early days at the War Office, before the Ministry of Munitions was established. The rest of the book is concerned with trades and industries falling outside the sphere of munitions, principally with textiles, leather, and certain foods.

The fourth chapter describes the early application of requisitioning and costing to the jute industry. The plan of fixing 'conversion costs' throughout the various stages of manufacture was first conceived in March 1915, in connexion with the supply of jute goods. The circumstances which led up to and accompanied

this first experiment are therefore set out in some detail. Attention is then turned to the problem, that at one time seemed almost insoluble, of finding, or rather inventing, a satisfactory legal foundation for the measures of control on which the War Office had embarked. This chapter explains the genesis of certain Regulations and Amendments issued under the Defence of the Realm Act, giving power to requisition output, license or prohibit dealings, fix prices and examine costs.

The next stage is represented by State purchase of raw materials, first of flax, then of jute, hemp, wool, leather, and hides. Part II gives a brief account of the manner in which these commodities were handled and the way in which the boot industry was organized for war purposes. A longer and more detailed account is inserted of the organization of British Wool Purchase, since this represented the first attempt to apply control on a large scale to agricultural produce.

Part III contains a description of Meat Control under the Ministry of Food. It illustrates, perhaps better than any other scheme, the difficulties of controlling supplies and prices of a perishable commodity needed for the daily consumption of the whole nation. Importers, farmers, dealers, wholesale traders, and retail butchers—all these had to be virtually combined in a single State Meat Trust, in order to ensure that the meat cards issued to every man, woman, and child in the country should be punctually honoured on presentation at the butcher's shop.

The account of oils and fats control which follows explains the manner in which manufacture, import, and wholesale distribution were organized on State account by self-governing Trade Associations. The survey of the meat and fats trades ends with a short account of the control of milk, butter, and cheese.

In Part IV an attempt is made to examine the general principles of war organization. Price-fixing, the State as importer, the costings system, the control of agricultural produce, of manufacture and of wholesale trade, are treated from a comparative point of view with illustrations drawn from the chapters that have gone before. The last chapter summarizes some of the lessons and consequences of war-time control with special reference

to the problems of large-scale organization and public administration.

The writer received permission in 1919 from the War Office and the Ministry of Food to make use of official sources of information; but neither Department is in any way responsible for the statements made, for the conclusions drawn, or for the manner in which the facts are presented.

I have endeavoured to keep the narrative as objective and impersonal as possible and have only occasionally mentioned by name the civil servants and business men whose struggles and achievements are here recorded. It would be ungracious, however, not to pay a sincere tribute of admiration to the work of my former chiefs, Mr. U. F. Wintour, C.B., C.M.G., and Mr. E. F. Wise, C.B., to whose vision, resourcefulness, and inspiring leadership the country owed so much during the war, and to the many distinguished business men who served under them at the War Office and the Ministry of Food—Sir Edward Penton, K.B.E., Director of Boots and Leather Supplies; Col. F. V. Willey, C.M.G., C.B.E., M.V.O., Controller of Wool Supplies; Sir Charles Sykes, K.B.E., Director of Wool Textile Production; Sir James Beattie, K.B.E., Controller of Flax and Jute Goods; Mr. George Malcolm, C.B.E., Controller of Raw Jute and Hemp; Mr. W. H. Gardner, Controller of Flax Supplies; Sir Francis Boys, K.B.E., Director of Meat Supplies; Sir Philip Proctor, K.B.E., Deputy Director and later Director of Meat Supplies; Sir William Wells, K.B.E., Chief Live Stock Commissioner; Sir Alfred Mansfield, K.B.E., Director of Oils and Fats; Sir Campbell Kirkman Finlay, Director of Oilseeds Supply; Mr. Wilfred Buckley, C.B.E., Director of Milk Supplies; Mr. William Lovell, C.B.E., Director of Butter and Cheese Supplies; and lastly, to Sir James Cooper, K.B.E., Director of Raw Materials Finance, and Sir Harry Peat, K.B.E., Financial Secretary of the Ministry of Food, upon whose skilled collaboration in costings and finance the schemes described were so largely dependent for their success. To these and other friends and colleagues whose names I have reluctantly had to omit, I dedicate this book.

E. M. H. LLOYD.

January 1924.

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INTRODUCTION

The paradox of war — Patriotism and social idealism — Disillusionment after the war — Was the 'larger air' an illusion? — The background of State control — Corporate feeling stronger than self-interest.

'WAR is the ruin of nations,' said Louis XIV on his death-bed, after a reign devoted to the military aggrandizement of France. 'The sword settles nothing,' said Napoleon at St. Helena. To-day the whole world has learnt the same lesson. The tragedy of the great war has branded into the world's consciousness a horror and loathing of war itself as of something utterly hideous, ruinous, and vile.

And yet there remains the paradox, which military apologists have so often urged, that war evokes some of the finest qualities in human nature. The last war is no exception. Just as its appalling evils exceeded in magnitude and horror those of all previous wars, so the self-sacrifice, courage, disinterested service—and even, one might add, the achievement of willing and effective co-operation, nationally and internationally, between vast masses of men, surpassed anything that would have been thought possible in time of peace. In almost every belligerent country the same phenomena were found—an intense patriotism that rose at first to the height of a religion and found its expression in the sacrifice not only of life itself, but of wealth, comfort, and the habits of a lifetime; a readiness to make experiments and adjustments in social and economic organization with astonishing rapidity and in defiance of precedent and tradition; and a concentration of massed endeavour and willing service that made light of almost insuperable obstacles and compressed the evolution of years into as many months. For the first time in history the world began to have a vision of what human association, raised to its highest degree, might accomplish. No wonder that the statesmen who were able to evoke such extraordinary manifestations of social harmony and social energy, believed or professed to believe that after

the war things would never be as they had been before, that in a few years the ills and injustices of centuries would be redressed and that the social system would be rebuilt on just and enduring foundations.

The memory of those few years of collective endeavour is something that many who now find themselves discarded or outcast recall almost with feelings of regret. During the war the humblest, the most aimless, and the most despised were filled with a new vision of usefulness and purpose in their lives. Their country wanted them. 'All the qualities of a man acquire dignity when he knows that the service of the collectivity that owns him needs them.'¹ Patriotism evoked unsuspected capacities and transformed the despondent, the cynical, and even the vicious from parasites or sufferers into heroes and idealists. In many indolent and selfish lives the war, for a time at any rate, worked a moral revolution. Social relations were transformed, not by legislation or by organization from without, but by individual regeneration from within.

This is not the whole of the truth, but it is the side that is most easily forgotten in the mood of disillusionment that has followed the war. Dishonesty, cruelty, and treachery are no less the fruits of war than heroism and self-sacrifice. The profiteer, the food-hoarder, the dishonest contractor, and the tyrannical or incompetent official were more in evidence in war than in peace, partly because war provided greater opportunities, but partly also because the atmosphere of war was demoralizing as well as stimulating.

And its evil effects are not confined to the war period. The after-effects of war upon conquerors and conquered alike are almost as devastating as the war itself. The state of European society since the Armistice has been marked by the worst features of war psychology with none of its redeeming qualities. Dreams of social reconstruction have been shattered. In every country the *union sacrée* has been dissolved. There is no common purpose to keep men together. Suspicion, revenge, class-feeling, and outraged nationalism have reopened great rifts in human society, and economic and social life is suffering a violent reaction from

¹ William James, *Memories and Studies*, p. 285.

the hothouse growths of war. Loyalty to their leaders and willing response to the call for public service have given place in men's minds to a mood of profound distrust in the capacity of governments to govern and of statesmen to lead. The privations of peace have in many countries been as severe as the privations of war, and the men who successfully strove to organize the world's resources for the prosecution of the war declare themselves helpless to repair the deficiencies and harsh injustices of peace.

So prompt have we been to forget the new spirit which grew up during the war that when we read again the contemporary literature of the war period—not the literature of war aims but sober plans of reconstruction—the change that has taken place in so few years seems like the difference between youth and age. There is a poignant irony in reading again such sentences as these: 'Life seems wider and more impersonal. Our fellow-countrymen seem nearer to us. Rank and class seem to count for less. All have suffered alike and all have served alike, and all have the same world to live in and repair—a world that seems lonely at times beyond all bearing, yet is lit up with the flame of sacrifice and the undying memory of those who are gone. . . . People have come to realize that what is needed is not a mere transitory programme to enable life to resume its normal pre-war channel, but some larger and more permanent policy, conceived in the spirit which the war has revealed. . . . Men who have breathed the larger air of common sacrifice are reluctant to return to the stuffy air of self-seeking.'¹

'The stuffy air of self-seeking' is so suffocating to-day that many have forgotten what it felt like to breathe the larger air. They remember only the pains and discomforts, the lying and corruption, the suppression of liberty, the profiteering, the waste, and the mismanagement. In every new account of what happened during the war we expect to learn only fresh scandals, fresh evidence that the 'larger air' was an illusion, and that the men who stayed at home were guided not by any ideals of public service but by the narrowest self-interest and class antagonism.

The historian of events so recent must beware of this mood of disillusionment. He must admit the idealism of war as a fact,

¹ A. E. Zimmern, *Nationality and Government*, 1918, pp. 244, 245.

however illusory its fruits. Evanescent and conditional though it was, it supplies an essential background to the subject-matter of this book.

In his well-known essay on *The Moral Equivalent of War* William James suggests one of the lessons to be learned from the psychology of war. 'The War Party', he says, 'is assuredly right in affirming and reaffirming that the martial virtues, although originally gained by the race through war, are absolute and permanent human goods. . . . Men now are proud of belonging to a conquering nation, and without a murmur they lay down their persons and their wealth, if by so doing they may fend off subjection.' He then raises the pregnant question, how far it may be possible to retain the martial virtues by substituting as the occasion for their exercise the constructive interests of society in place of its defence against external aggression. 'Intrepidity, contempt of softness, surrender of private interests, obedience to command, must still remain the rock upon which States are built. . . . It would be simply preposterous', he concludes, 'if the only force that could work ideals of honour and standards of efficiency into English or American natures should be the fear of being killed by the Germans or the Japanese.'¹

The 'fear of being killed by the Germans', whether or not it is the only force that can evoke such a response, did in fact work a surprising transformation in current standards of honour and efficiency. Traders and manufacturers learnt to subordinate their interests to social ends; workers were induced to work longer hours, to surrender time-honoured customs, and to speed up production; and wealthy consumers learnt to bear their share in the deficiencies of food and fuel. The higher standards of honour and efficiency, which were commented upon during the war and aroused large hopes of social reconstruction, were not altogether illusory. Even in the sphere of civilian administration, with which this book is concerned, the organization of State control was an expression of corporate feeling and collective responsibility of a far more intense kind than that which binds society together in times of peace.

But if social idealism supplies the background, the fore-

¹ William James, *op. cit.*, pp. 288-95.

ground of the picture is a jungle of conflicting private interests. Every restriction on civilian freedom, every limitation of the right to strike and the right to profiteer aroused vigorous opposition. The civilian's duty in time of war was a fluctuating code of negative rather than positive injunctions. It was immoral to oppose conscription for the Army, but it was not immoral to obstruct conscription of labour or conscription of wealth. It was only gradually that patriotic emotion became effective in matters of no direct military concern. Men reacted vehemently and naturally against trading with the enemy ; but it was difficult to regard a breach of food and fuel restrictions with the same moral fervour. In spite of the new spirit which rendered closer cohesion and organization possible there were strong centrifugal tendencies which had to be overcome. Lack of imagination, habit, and self-interest were the rocks over which each scheme described in this book had to be steered with anxious circumspection. Not the least of Lord Rhondda's achievements as pilot of the nation's foodship was that he understood the psychology of obstruction and knew how to meet it with firmness and yet with sympathy.

But when all is said, the wonder is not that individualism was so strong, but that corporate feeling was stronger. Hateful as was the need and hideous the result, yet the temper and method of war organization still leave a hope that human association may accomplish miracles. The machinery, the technical capacity, the uncanny secrets of science are there to be used ; it is only men's minds which refuse to devote them to the service of peace and life.

PART I

ORIGINS OF CONTROL AT THE WAR OFFICE

CHAPTER I

ARMY SUPPLY IN PEACE AND WAR

Historical background — Army supply under Queen Elizabeth — Cromwell's reforms — Corruption returns with the Restoration — Abuses in Marlborough's time — Scandalous mismanagement during Napoleonic wars — Sufferings of the troops in Flanders and West Indies — Corruption at the War Office — Duke of Wellington's reforms — The Crimean scandals — 'Old-fashioned departmentalism' — Growth of integrity and efficiency in the public services — Results of democracy.

Origin of Army Contracts Department — Purchasing machinery of British War Office in 1914 — Functions of Contracts Department and Supply Departments — Army factories — Efficiency of pre-war system.

THE administrative experiments described in this book, which arose out of the need for equipping an army and organizing a nation for war, were of a kind and magnitude unprecedented in history. Never before, except possibly under the Incas of Peru, had civil administration been called upon to play such a part in the life of a nation. Towards the end of the war the Army had become practically coterminous with the community, and the scope of Government activities extended over nearly the whole field of civilian life. Public administration was utterly unprepared for such a task; nor was its record in the past such as to inspire confidence. Even the simpler business of equipping the small armies of previous wars had rarely been conducted with conspicuous success. Army contracts was a phrase that connoted corruption and mismanagement. It may be useful, therefore, to glance briefly at the history of this branch of public administration, before describing the efforts made by the War Office in 1914 to escape the reproaches of incompetence so freely flung at it, and to dissipate some of the suspicion and mistrust bred of centuries of army scandals.

'It is an unpleasant thought', says Mr. Fortescue, reviewing

the seamy side of army administration in the past, 'that dishonesty and speculation should be inseparably associated with so much that is noble and heroic in human history, but the fact is indisputable and must not be lightly passed over.'¹ Nor is it a pleasant thought that the higher moral standard that has become general in public administration during the last fifty years should have rendered it possible to carry on the most tragic war in history. But the fact remains. War on the modern scale can only be waged by nations that can rely on a reasonably high standard of honour and efficiency in the public services.

For the greater part of English history neither Parliament nor the Crown took adequate steps to ensure that the Army was properly fed and clothed. Each regiment was regarded as the colonel's property, and the profit he made on clothing his men was in time of peace his chief source of income. In Queen Elizabeth's time the soldier's pay was 8*d.* a day or £12 13*s.* 4*d.* a year. The commanding officer drew the pay and was entitled to deduct £4 2*s.* 6*d.* for clothing and £7 8*s.* 4*d.* for victualling, leaving only £1 2*s.* 6*d.* for the soldier. In consequence of this system commissions were bought and sold, and it became a regular practice to falsify the muster roll in order to draw pay for a fictitious number of men.²

This system was for a time swept away by Cromwell. The purchase of commissions was abolished, and with it went a mass of corruption and fraud. The New Model Army was not only better disciplined but had a higher morale than the old army. With the Restoration, however, the old abuses returned, and under Charles II corruption was rampant from the highest to the lowest. The Paymaster-General was responsible to the King alone, and took a commission of 5 per cent. on all pay issued to the Army. Civilian officials, such as auditors, commissaries, and their subordinates, obtained their livelihood by a system of fees and perquisites. Officers were forced into dishonesty by the withholding of their pay by civilian officials in London. Captains of companies stationed in Ireland appropriated the entire pay of their men and turned them loose to live by plundering the

¹ Hon. J. W. Fortescue, *History of the British Army*, vol. i, p. 31.

² *Ibid.*, p. 156.

inhabitants. The evils of corruption which had been checked by the Puritans were now firmly established, and were not eradicated for nearly a hundred and fifty years. 'The sin and shame of England is that though she had once put away the accursed thing from her, she returned to it again as the sow to her wallowing in the mire.'¹

In 1702 the Paymaster-General, Lord Ranelagh, was convicted of fraud, and the Paymaster-General's office was reformed. In 1706 the Duke of Marlborough caused an inquiry to be made into the abuses which prevailed in the clothing of the Army. In spite of the mismanagement and corruption of the commanding officers Marlborough was opposed to centralization of supply, and the colonels were still left to provide for their men; but a Board of General Officers was appointed to sanction contracts and to see that the colonels did their duty. During the war of the Spanish Succession severe losses were suffered in the Peninsula and in the West Indies owing to the breakdown of the supply services. Marlborough himself was impeached for defrauding the Exchequer by taking $2\frac{1}{2}$ per cent. commission on all bread supplied to the Army in the Low Countries. The Duke was able to prove that this was the usual practice, and that the funds so obtained were used for paying the cost of the secret service, for which Parliament made no provision. Marlborough was dismissed from his post, but his successor, the Duke of Ormonde, was allowed by Parliament to continue the same practice. In 1712 a mutiny broke out because the troops could get no bread at all.²

In the ill-fated expedition to Carthagená in 1740, which is described by Smollett in *Roderick Random*, nine out of every ten men who sailed in the original expedition perished through sickness or privation. The stores supplied were 'unspeakably bad', the food was indifferent, and there were no nurses, doctors, surgeons, or hospital supplies. The responsibility for this disaster appears to rest chiefly with the incompetence and corruption which prevailed at the War Office, but the system under which colonels profited at the expense of their men contributed to the breakdown.³ According to the Report of the Commissioners

¹ Op. cit., pp. 285-321.

² Ibid., pp. 409-560.

³ Ibid., vol. ii, pp. 63-78.

on Army Expenditure in 1746, deductions for clothing were often much in excess of the cost. In 1745 it was found that in the 1st Horse Guards the deductions amounted to £2,823, and the clothier's account was £1,946, leaving a profit of £877 for the colonel. This system was not abolished till 1854.¹

The mismanagement of the Commissariat during the wars with France, until the Duke of Wellington took it in hand during the Peninsular War, are not facts on which historians usually dwell. The Army suffered greatly from Pitt's ideas of economy. The Treasury paid large sums for raising recruits, and then allowed thousands of them to be killed or disabled by small economies in the supply of food, clothing, and medical attendance. At this time a colonel's nominal allowance for clothing each soldier amounted to no more than £2 8s. a year, which involved him in a heavy loss. The civilians in the military departments tried to make money at the expense of the officers, and the officers were compelled to recoup themselves at the cost of the men. The consequence was that colonels took bribes from contractors, soldiers were constantly in debt, food and clothing was bad, and desertion was frequent. Pitt's record as an economist is summed up in the *History of the British Army*, as follows: 'Pitt allowed the soldier to starve from 1784 to 1791, gave a grudging pittance in 1792, and increased his pay threefold under threat of mutiny in 1797.'²

In these circumstances it is not surprising that the Duke of York's Army which fought in Flanders in 1794 is said to have been worse clothed than British troops had ever been on any previous recorded occasion. Raw recruits were sent across the Channel without arms, ammunition, clothing, or medical stores. The doctors and surgeons were convicted of inefficiency, dishonesty, and cruelty, the reason being that the Treasury refused to pay the fees demanded by properly qualified medical men.³

During the long campaigns in the West Indies from 1794 to 1798 the troops were decimated by bad food and inadequate and unsuitable clothing. This was due not merely to inefficiency but to fraud and corruption. Many of the officers in charge of army

¹ de Fonblanque, *Treatise on the Administration and Organization of the British Army*, p. 400.

² *History of the British Army*, vol. iii, p. 530; vol. iv, pp. 316-20.

³ *Ibid.*, vol. iv, p. 300.

supply made large fortunes. One Commissary is said to have amassed £87,000 by shameless fraud. The whole service was infected by the prevailing system of bribery and dishonesty.¹

During this period the Secretary at War was Sir George Yonge, who after leaving the War Office was appointed Governor of the Cape in 1799, and was recalled in 1801 for having granted a monopoly of the meat supply of the garrison to a firm of dishonest contractors who allowed him a share in the profits.² The War Office under Sir George Yonge was 'a sink of robbery and extortion'. The clerks and officials made their livelihood by a recognized system of fees and customary perquisites. One official, as part of the emoluments of his office, enjoyed the right to supply coal to the garrison of Gibraltar as a profit.³

It is a relief to turn from this record of systematic corruption to the achievements of the Duke of Wellington during the Peninsular War. Writing to Lord Castlereagh from Portugal in August 1808, he says: 'I have had the greatest difficulty in organizing my Commissariat for the march, and that department is very incompetent; the department deserves your serious attention; the existence of the Army depends upon it, yet the people who manage it are incapable of managing anything out of a counting-house.' Later he writes: 'Our Commissariat is very bad, but it is new, and will improve I hope.' It was largely owing to the Duke's own efforts and to the experience he had gained in his campaigns in India, that in a few years the supply and transport departments of his Army reached a comparatively high standard of efficiency, and appear to have been distinctly superior to those of Napoleon. The French armies were accustomed to live mainly by pillage and requisitioning. But even so Napoleon was not satisfied with his Commissariat. 'Envoyez-moi donc,' he wrote to the Directory from Italy in 1795, 'un ordonnateur habile, distingué, homme de génie; je n'ai que des pygmées qui me font mourir de faim dans le plus beau pays du monde.' Sir Charles Trevelyan states in a Memorandum written for the War Office in 1855 that the Duke of Wellington raised the organization of the Commissariat so high that on the restoration of peace the French

¹ Op. cit., vol. x, p. 192.

³ Ibid., vol. x, p. 197.

² Ibid., vol. iv, p. 872.

Government sent Baron Dupin to inquire into the arrangements which had proved so conducive to military efficiency. 'It has now become our turn', he adds, referring to the Crimean scandals, 'to learn from the French.'¹

During the nineteenth century a gradual improvement took place. Many of the traditional abuses were done away with, and the House of Commons, through its Public Accounts Committee, paid increasing attention to irregularities in the administration of public funds. But the system of obtaining supplies for the Army was still unsatisfactory when the Crimean War broke out. It was not till 1854 that the business of feeding and clothing the troops was taken out of the hands of commanding officers and centralized in a single supply department.

The loss of life and the sufferings caused by the breakdown in the supply of food, clothing, and hospital stores in the Crimea were proportionately not greater than in many of the disastrous expeditions during the war with France fifty years before. But public opinion was now more easily aroused by the horrors to which the private soldier was exposed. In the official report on the Crimean scandals, published in 1855, the picture of muddle and misery, which had been painted so vividly by the famous war correspondent Russell, was shown to be by no means exaggerated. Apart from the breakdown of transport and the lack of proper medical equipment, much of the food issued was uneatable, and the boots and clothing were deficient in amount and inferior in quality. The Report says that the clothing was 'extremely spongy in its texture, badly put together, and quite unfit to stand the tear and wear of the rough work of the trenches'. Of the boots it says, 'like all articles obtained by contract from the lowest bidder, the workmanship was bad, and totally unfit for endurance in the tenacious soil of the trenches, or for travelling along the muddy roads, in which the men were often half-leg deep.' A report of a Board of Officers which met at Sebastopol on January 8, 1855, states that 'two or three days' wear on duty and fatigues have rendered the boots useless, the heels and soles becoming detached from the uppers'.²

¹ *Treatise on the Administration and Organization of the British Army*, pp. 55-60.

² *Report of the Commission of Inquiry into the Supplies of the British Army in the Crimea*, 1855, p. 3.

Not only was there an absence of sanitary precautions, which caused a severe outbreak of dysentery and cholera, but no attention was given to the need for a scientific dietary. During the first year the troops were fed for the most part on biscuits and salt meat, and there was a total lack of fresh vegetables. The attitude of the Commissariat on this matter is illustrated by a story told by Prince Albert to Lord Panmure, the Secretary of State for War, in a letter dated February 10, 1855 :

It is admitted by all medical men that the greatest danger to our army arises from scorbutic diseases and a corrupt state of blood, caused chiefly by the use of salt provisions. Vegetables are of the utmost importance to the poor men. It so happens that one of the Crimean Relief Societies sent out a whole shipful of vegetables. On its arrival at Constantinople, the man in charge of it reported himself to the Commissary (I believe Smith, reported to be our best), who was delighted to hear of the arrival of provisions ; when he saw the list, however, and found they were vegetables, he declined purchasing 'as the Commissariat had *no power* to purchase vegetables'!! You will know that such is the ordinary rule, but surely in these moments they ought to have full powers to exercise their own discretion.

Lord Panmure replied as follows :

The narrative with which Your Royal Highness has favoured me is of a piece with the old-fashioned departmentalism throughout the whole administration of military affairs, which must be entirely overset.¹

The reforms that took place during and after the Crimean War laid the foundation of the modern system of army administration. At the present time when the standards of efficiency expected in the public service are still apt to be higher than average human nature can reach, it is worth emphasizing the rapid and unmistakable improvement which has taken place even in the last fifty years. One has but to dip into the history of army administration to realize that there has been a marked advance in the integrity and efficiency of public servants and the honesty of army contractors. What are the main reasons for this change ?

It has often been observed that honesty and fair dealing in business have been encouraged by the development of banking and the growth of the credit system. The causes that have contributed to raise the standards of honour and efficiency in public

¹ *The Panmure Papers*, vol. i, pp. 54-5.

administration are many and various. For one thing ideas of economy have changed. It is now realized that it is more economical to pay decent salaries to Government officials than to leave them to obtain their livelihood by recognized or illicit fees and perquisites. The principle of paying a living wage to all public servants out of public funds has only been admitted in comparatively recent times. Without this it was impossible to expect efficient and honourable service or a high sense of public duty.

But another important factor contributing to the same end has been the growth of democratic institutions and a democratic public opinion. The abolition of sinecures and perquisites has been accompanied by an increasingly critical and exacting attitude on the part of the public and the Press towards the conduct of public officials. This attitude, it is true, is sometimes more concerned with the cutting down of expenditure as an end itself, without regard to the value and efficiency of the service performed ; but on the whole, especially in time of war, and on matters in which public opinion is particularly interested, criticism has acted as a spur to efficiency. The results of democracy are particularly noticeable in the change which has taken place in the treatment of the private soldier. He is no longer a common vagabond, forced by destitution or the attentions of the press-gang to exchange the frying-pan of peace for the fire of war. He is a voter, with a share in the government of his country. Whether he enlists as a volunteer or is conscripted by the will of the majority, he must be treated as a citizen with full rights. The heartless indifference of the Government and the ruling classes to the sufferings of the common soldier during the Napoleonic wars reflects a social system which first created rogues and vagabonds, and then offered them service in the Army as the only possible avenue of escape from a life of misery and persecution. The elaborate care taken to safeguard the health and well-being of the soldier during the Great War was due not merely to the advance of medical science and improvements in the technique of public administration, but to the extension of democracy and public education and the higher standard of living which they have rendered possible.

The Army Contracts Department of the War Office was

created during the Crimean War in consequence of the breakdown of the previous system of obtaining supplies for the Army. It was laid down that all stores required for the Army should be purchased by the Contracts Department, and that the normal method of making contracts should be by public competition. After the South African War, the experience of which had shown that the problem of an efficient and reliable supply system had not yet been entirely solved, much attention was given to the reorganization of the Purchasing Departments of the War Office. The principle of centralizing purchases was confirmed by Sir Clinton Dawkins' Committee, which reported in 1901, but was discarded in 1904 on the recommendation of Lord Esher's War Office (Reconstitution) Committee. In that year the Contracts Department was abolished, and the military supply departments were authorized to do their own buying direct. The new system did not, however, last long. It resulted in competition in the same markets between the different supply departments, and the absence of a single purchasing authority led to other difficulties. The Army Council therefore decided in 1907 to re-establish the post of Director of Army Contracts. The main lines of organization then laid down continued with slight alterations till the outbreak of war.

The underlying principles of this organization were that the buying for the whole Army should be centralized in the War Office; that the military supply departments should determine requirements, draw up specifications, and receive, store, and inspect the goods; and that the actual placing of contracts, the selection of firms invited to tender, and negotiations as to price should rest with the Army Contracts Department, which was a civilian branch, responsible to the Financial Secretary. The advantages of centralization of buying were obvious. But the grounds for divorcing the functions of purchase and inspection were less obvious. The main object was to provide a system of checks and counter-checks, which would prevent any possibility of financial laxity or costly errors of judgement. That the system involved inevitable delays owing to the necessity of referring to and fro between different offices, which were situated miles apart in different parts of London, was not a serious defect in normal

times. Mistakes were less likely to occur if nothing could be done in a hurry ; and experience confirmed that several brains were better than one in dealing with the wiles of Army contractors. The system was thus a rather complicated division of labour under which the Financial Member of the Army Council, who was responsible to Parliament for the expenditure of public money, looked after the question of price ; and the Quartermaster-General or the Master-General of the Ordnance, his colleagues on the Army Council, decided what to buy and saw that the quality was satisfactory.

In July 1914 the Army Contracts Department consisted of fifty-six officials and clerks. It was their business to keep lists of reliable contractors ; to receive demands from the supply departments, and send out inquiries and forms of tender to selected firms ; then to open the tenders received at the time appointed, tabulate full particulars, and pass them on to the supply departments with their recommendations ; and finally to issue forms of contract to be signed and returned by the successful firms. A staff of not more than twenty was sufficient to handle in this manner the business of purchasing munitions and explosives. The average annual purchases of the Army in times of peace were between five and six million pounds, the actual total for the two years before the war being £11,370,000. About half this amount represented contracts placed by the Contracts Department of the War Office, the balance being local purchases reviewed, but not placed, by the Contracts Department. The resources of the whole world were available to draw upon. Hundreds of firms catered specially for Army requirements, and many thousands could be counted on to compete eagerly for the privilege of selling to the War Office and calling themselves Government Contractors. Except for an occasional attempt at a ' ring ', that is to say, an understanding between tendering firms, competition could be trusted to keep prices down to a reasonable level. The constant pre-occupation of the Contracts Department was to watch for evidence of rings and to take steps to break them up when discovered by refusing to deal with the offenders. It was a severe punishment for most firms to be struck off the War Office list.

Equal care had been given to perfect the organization of the military supply departments. Technical experts were employed for drawing up specifications and inspecting deliveries. Scientific methods of testing were in use. Estimates of requirements could be gauged with great accuracy. With a strictly limited amount of funds to draw upon, the military departments had to cut down their expenditure to the minimum, purchase goods which would last for a long time, and never keep more than a minimum of reserve stocks on grounds of economy and for fear of loss by deterioration. At Woolwich, Pimlico, and elsewhere the military departments had their own Army factories, where uniforms, guns, and ammunition were manufactured, special processes tested, and comparisons made with the quality and cost of privately manufactured goods. An extension of direct manufacture by the State might perhaps have been justified both on grounds of efficiency and economy, but this development had been abandoned on grounds of policy. A Committee on the Organization and Administration of the Manufacturing Departments of the Army appointed in 1887, under the chairmanship of the Earl of Morley, reported that they looked upon the success of the Army factories with some apprehension. They found that the State factories were well-equipped and economically managed, but they noticed a tendency for their activities to be expanded unduly at the expense of private manufacturers. 'The natural tendency for able administrators is to develop the works of which they have charge to the fullest possible extent.'¹ This tendency they seem to have regarded as a menace to the private armament industry, the prosperity of which was vital to the defence of the country. As a result of this point of view the Army factories only produced about a third of the guns and ammunition and half the uniforms required, but their existence provided a useful check on private manufacturers. The fraudulent contractor was easily caught; his only chance to avoid detection was by bribery, but under the elaborate system of checks which prevailed successful bribery was rare and attempts were soon detected and punished.

¹ *Report of the Committee on the Organization and Administration of the Manufacturing Departments of the Army, 1887, C. 5116.*

Under the conditions obtaining in times of peace, the system so organized worked smoothly and efficiently. Within the limits imposed by the strictest economy, it gave the Army all that it required. It delivered the goods at the right time and in the right place, sound and durable in quality, and at the cheapest possible price. Unquestionably the War Office machinery was adequate for the needs of peace. What would happen if a European war should break out, no one could prophesy.

CHAPTER II

THE OUTBREAK OF WAR

Normal routine continued — Appeal for 500,000 volunteers — Centralized buying breaks down — Story of jerseys bought by local commands — Paralysis at head-quarters — Purchases by Allied Governments — Commission Internationale de Ravitaillement — Unemployed harness-makers and Army saddles — Lord Kitchener's intervention — Proposals for reorganization of Army buying — Necessity for organizing industry first realized November 1914 — Reluctance to interfere with private enterprise — Nationalization of armament firms rejected — Ministry of Munitions established May 1915 — Provision of food, clothing, and miscellaneous equipment remains with Army Contracts Department — Origins of State control in the War Office.

WHEN war broke out there were no sudden changes. The normal routine continued as if war were to make little difference. When the Expeditionary Force had crossed to France, additional orders were placed, and appeals for special urgency began to interfere with the smooth flow of business. Then the decision to raise an army of a hundred thousand men brought orders on an unprecedented scale. The work of the Contracts Department began to grow congested and the staff became overburdened. A few weeks later it was announced that Lord Kitchener had decided to appeal for a further five hundred thousand men. To equip such a force seemed beyond the range of possibility ; but the same system continued, the same number of officials and clerks endeavoured to cope with the ever-growing mass of arrears, and larger and larger demands were made upon the firms on the War Office list. Long before even the most necessary supplies were ready, recruits began to pour in to the improvised camps in their tens of thousands. The system of centralized buying broke down ; local commands bought where they could at any price ; recruits were told to bring their own blankets and toilet necessities to make good the deficiencies of the official supply. Pneumonia broke out in many camps and was attributed to the lack of proper equipment. The competition of local commands, of privately raised battalions, of Territorial Force Associations,

of the Allied Armies, and of the supply departments and Contracts Department of the War Office produced a wild scramble, which sent prices up by leaps and bounds.

The following story is well authenticated: A consignment of jerseys was bought by a firm of merchants at 3*s.* 11*d.* each and offered to the War Office at 4*s.* 5*d.* The offer was refused because the price was too high, whereupon the goods were sold to a provincial draper at 4*s.* 11*d.* The draper then sold a considerable quantity to various local commands at 5*s.* 10*d.*; and the balance went to a firm of Army contractors at 5*s.* 9*d.*, who resold them to a Territorial Force Association for 6*s.* 6*d.*

The buying machinery at head-quarters, which was functioning smoothly when war broke out, was now becoming paralysed. No preparations had been made for such a strain as this. The very merits of the system—the elaborate checks, the careful division of labour, the strict adherence to rules and precedents, and the constant reference from one officer to another for concurrence, observations, or covering authority—all these tended to stifle initiative and clog the wheels of the machine. There were plans in the War Office for dealing with an outbreak of war; but no plans for war on such a scale as this. For weeks and months few even in the War Office realized the extent of the struggle on which the country had embarked. Even to the General Staff it would have seemed incredible at that time that Great Britain would have to raise more than five million men before the War ended. Certainly no one in the Contracts Department could have been expected to plan on such an assumption.

In October 1914 a crisis was reached. The situation had for some time been complicated by the competition of Allied Governments, whose needs were no less urgent than those of the British Forces; indeed, the importance of equipping the Allied Armies which were already fighting at the front was even greater than that of supplying the recruits of Kitchener's Army. Early in August a body called the Commission Internationale de Ravitaillement had been set up as the result of an agreement between the French and British Governments.¹ Its purpose was to enable the purchasing officers of the French Government to have access to the

¹ Appendix 1.

information as to firms and markets in the possession of the Contracts Departments of the War Office and Admiralty, and to secure that, where the requirements of the two Governments were likely to clash, competition should so far as possible be avoided. At later dates representatives of other Allies joined the Commission. The administrative and secretarial work of the Commission was entrusted to the Exhibitions Branch of the Board of Trade, whose officials assisted the Allied buyers in finding sources of supply and negotiating with British firms. Before orders could be placed by the Allies, the Board of Trade officials had to obtain the consent of the War Office and Admiralty. But in spite of this check the Allies had been remarkably successful in obtaining supplies. Effective methods had been rapidly improvised to meet the emergency; there were no precedents and no established routines to stand in the way. Indeed, many manufacturers found it simpler to do business with the Allies through the Board of Trade than with the War Office; there were fewer formalities and there was more reasonable latitude as to quality and specification.

A concrete example will illustrate the difference. One of the most urgent needs of the Allies was for saddlery and harness. The War Office refused to give its consent to any purchases of saddlery on the ground that the whole output of the country was being taken for the British Army. The Board of Trade then asked for a list of all the manufacturers of saddlery on the War Office list, and inquired if orders might be placed with any firms which did not appear on the list. To this the War Office raised no objection. Within a short time the Allies were obtaining their saddles, while deliveries for the British Army remained unsatisfactory. The reasons were twofold. The Board of Trade had managed to tap new sources of supply; and the Allied representatives were not bound by the rigid specifications laid down by the War Office. Unemployed harness-makers were found in Birmingham and Walsall who had probably never seen an Army saddle, and would never have dreamt of tendering to the War Office. When it was explained to them what was wanted, they set to work on a simplified pattern and produced large quantities which satisfied the urgent needs of the Allies.

When Lord Kitchener discovered that the Allies were getting what they wanted, while the Army was still woefully short, he took the characteristic step of commandeering the services of Mr. U. F. Wintour, C.B., C.M.G., the Board of Trade official who was buying for them, and appointing him to the post of Director of Army Contracts.

In November 1914 the new Director of Army Contracts presented a report to the Army Council containing proposals for the re-organization of the purchasing system. The difficulties were of two classes, internal and external, and each reacted on the other. The internal difficulties, caused by the necessity of adjusting the existing administrative machinery to new conditions, were gradually remedied during the war; they are only mentioned here because of their bearing on the external problem and the particular forms of State control adopted by the War Office.

The weaknesses of the existing system were attributed to the division of responsibility for purchase between two different departments, one being responsible for considering the price and the other for deciding the quality. Inevitably under war conditions this line of demarcation was constantly being overstepped. Whenever demands were exceptionally urgent, the military departments were tempted to usurp the functions of the Contracts Department and place orders direct. The necessity of accepting substitutes for the standard official patterns also caused great confusion. The Contracts Department was supposed to find out what sources of supply were available, and to know the productive capacity of the country. The military departments, on the other hand, were the sole judge of quality, and were reluctant to modify the rigid specifications to which they were accustomed. The result was that there was no single authority to balance the comparative importance of speed and quantity on the one hand and excellence of quality on the other. With two departments dealing with separate halves of the problem, it was nobody's business to survey the problem as a whole.

The solution proposed was to combine the two halves and set up a single authority responsible for the whole business of providing stores for the Army. This department would determine questions of quality and price, inspect samples and place con-

tracts, watch the execution of orders, hasten deliveries in arrears, and assist manufacturers in every possible way. In many branches of industry the ordinary resources of the country were insufficient to produce all that was required; and if the new armies were to be equipped in time, the co-operation of every available manufacturer would be required. In such circumstances it was useless to attempt to adhere rigidly to standard patterns drawn up to suit peace-time conditions. Attention would have to be given to such considerations as the comparative speed at which articles of slightly different type could be produced, the available supplies of raw material, and the most fruitful use of labour and machinery. The buying department would have to be in the closest possible touch with industry, studying the possibilities of home and foreign sources of supply, and intervening where necessary to secure the maximum production for military purposes.

The argument was summed up in the following words, the truth of which was not fully realized for many months: 'The important part played by industry in fitting out an army has not been sufficiently recognized. The war is a war of organization, in which the raising of men is one very important item. It is equally important that they should be equipped, clothed, fed, and provided with guns, arms, and ammunition. For the provision of these necessities, industry, and industry alone, has to be relied upon, and the rapidity and effectiveness with which industry can be organized to meet the emergency cannot but have an enormous influence upon the issue of the struggle.'

Even in the sphere of guns and ammunition, where the need was greatest, six months elapsed before effective steps were taken to give effect to this policy by the establishment in May 1915 of the Ministry of Munitions. The idea that industry would have to be deliberately organized for war production encountered subconscious resistance in a Government committed to the doctrines of free trade and individualism. It is not surprising that the necessity for State intervention was only gradually admitted by Ministers who had spent the greater part of their political careers in exploding the fallacies of Protectionism on the one hand and Socialism on the other.

But more important even than the traditional bias of a

liberal Ministry was the conservative professional outlook of the soldiers. The military departments of the War Office relied on private enterprise to perform its job of finding supplies in war, as implicitly as they did in times of peace. It was naturally felt that it was not the business of soldiers to meddle with industry. Though many of them were technical experts in engineering, they had little theoretical or practical knowledge of the organization of industry, of labour conditions, or of economic statistics. It was not surprising, therefore, that they under-estimated the difficulties with which the regular War Office contractor would be faced in meeting the demands made upon them, and the slowness with which the economic system would adjust itself unaided to the colossal task of transformation from peace to war conditions.

In October 1914 a proposal was made in the War Office that the Government should take over the large armament firms and transform them from private commercial ventures into a branch of the public service; but this suggestion received no serious consideration. It was thought preferable to rely on private enterprise and the laws of supply and demand. The result was that for the first year of the war firms able to supply munitions had to struggle against herculean difficulties, and the fact that they were able to obtain any price they chose to ask was an extravagant and probably unnecessary stimulus. The doctrine implicitly acted upon was that the higher the price and the greater the freedom allowed to the private contractor, the greater would be the increase in the supply; it followed that if only the Government paid high enough prices and left private firms to their own devices, munitions would be forthcoming in abundance.

After nearly a year's trial, this theory was abandoned. The problem of munitions supply was tackled in a different way. National organization and centralized control were found to be more effective than high prices and *laissez-faire* in stimulating supply. National factories were built; raw materials were monopolized and distributed by the Government at fixed prices; and manufacturers, instead of being left to produce shells or not as they pleased and to ask any price they liked, were, if necessary, required to produce them at prices based on cost, and instructed how to do it.

The methods of State control adopted by the Ministry of Munitions fall outside the scope of this volume. The Ministry covered an immense range of trades and industries; its total expenditure from June 1915 to March 1919 was close on £2,000,000,000; and in place of the twenty clerks in the Army Contracts Department who sufficed to purchase munitions in August 1914, it employed in November 1918 a staff of 65,142 persons. But in spite of its vast responsibilities, it covered only a part of the Army's requirements. The principal items covered by the Ministry were arms, ammunition, mechanical transport, optical instruments, and aeronautical supplies. The Army Contracts Department remained responsible for the provision of most other supplies and equipments. These included food of every kind for the soldier's daily ration; a complete outfit of clothing, including underwear, hosiery, shirts, uniforms, boots, great-coats, accoutrements, pack, blankets, ground-sheets; huts, tents, engineers' stores, and miscellaneous camp equipment; timber, barbed wire, picks and shovels, sandbags, rubber boots, and smoke helmets for use in the trenches; stretchers, drugs, medicines, and hospital stores for the Army Medical Corps; forage, horse-shoes, harness and saddlery for the mounted troops; petrol, fuel, and light; and innumerable other items of less importance. The exact line of demarcation was not always easy to define. But, broadly speaking, the division followed that between the two great military supply departments of the Army. The Master-General of the Ordnance obtained most of his supplies through the Ministry of Munitions; the Quartermaster-General through the Army Contracts Department. Another broad distinction was that the Ministry dealt with the engineering and metal industries; the War Office, though it bought a large amount of hardware and tools, dealt primarily with the food trades and the textile and leather industries. With the exception of a comparatively few items, the supplies purchased by the War Office were within the productive capacity of the country, but were drawn from the same sources of supply as the necessities of life for the civilian population. The Ministry's demands on the other hand far exceeded the original capacity of production, but were not for the most part of a kind for which there was a large and

indispensable civilian demand. This difference had an important bearing on the development of State control in the two departments.

The evolution of control, like the evolution of natural species, had many starting-points and many parallel lines of descent. The chief significance of the early experiments at the War Office is that they led ultimately to control of the necessities of life for the civilian population. By requisitioning practically the whole output of the engineering industry and making use of nearly all the iron and steel obtainable, the Ministry of Munitions virtually suppressed private trade and ignored civilian needs. In the textile industries and food trades the War Office could not do this; civilian requirements had to be met. This led to the Standard Clothing and War-time Boots schemes on the one hand, and to the establishment of the Ministry of Food on the other. The machinery of control necessarily became more elaborate when it was concerned with the needs of private consumers. But the experience of the War Office in feeding and clothing five million men in the Army provided a useful preparation for the task of feeding and clothing the thirty-five million who remained at home. The starting-point of the evolution traced in this book is the struggle of the Army Contracts Department to secure supplies for the Army and to protect the Government from extortionate charges; the final stage is reached in a national and international organization to secure supplies at reasonable prices for the whole nation.

CHAPTER III

FROM COMPETITIVE TENDERING TO COLLECTIVE BARGAINING

Speculation in Army supplies — Delays inherent in tendering system — Public criticism of high prices paid — Comparison with business methods — Establishing personal contact — Widening area of supply — Work of the Labour Exchanges — The laws of supply and demand and 'business as usual' — Effect on prices of raw and subsidiary materials — Weakness of competitive tendering — New policy of collective negotiations — Agreement with Wholesale Clothiers' Association — Objections to the 'flat rate' principle — Advantages of new system — Difficulties still unsolved.

THE story of the jerseys which cost 3s. 11d., were offered to and refused by the War Office at 4s. 5d., and were ultimately sold to local Army buyers at 5s. 10d. and 6s. 6d., has been given as a typical illustration of what happened towards the end of 1914. This was by no means an isolated or exceptional case; it happens to be well authenticated, because a friendly critic of the War Office took the trouble to trace the facts from beginning to end. In every item of Army clothing the same feverish buying and selling went on. Army socks became a favourite gambling counter in the city; speculators turned with relief from the slump in rubber shares to the boom in Army contracts. Somebody brought off something like a corner in blankets; for a few days the market was bare. No risk attached to such transactions; they were perfectly sound business propositions. Any one who could offer supplies could name his own price; and in order to get a contract, it was not always necessary even to possess the goods. An option was sufficient. The banks were quite willing to advance money on a War Office contract and thus enable the contractor to buy what he had already sold.

The Army Contracts Department tried to put a stop to this speculation. One of its rules in normal times was to deal direct with manufacturers and never to buy from merchants and middlemen. Endeavours were made to maintain this principle. But

when the middlemen could offer delivery from stock, and the goods were required immediately, the Department had no alternative ; it could not afford to wait for the goods to be manufactured. The result was that merchants were encouraged to anticipate Army requirements, and place orders with manufacturers before they had sold their output to the War Office. The merchant could buy quickly ; as soon as he knew what the War Office wanted, he could fix up a contract in a few hours. The War Office, on the other hand, took days and sometimes weeks to make up its mind. The regular routine was too slow and deliberate to keep pace with the feverish activities of the speculators.

Attempts were made to speed up the work of dealing with tenders ; long hours of overtime were worked, fresh staff was engaged, and when the strain and congestion grew too great, additional accommodation was obtained outside the War Office. But a limit was soon reached beyond which it was found impossible to reduce the interval between the receipt and the acceptance of offers. Under the tendering system as many as two or three hundred different offers would be received at the same hour, and all had to be considered together. Before the final allocation could be made, papers would be referred backwards and forwards between four different offices, in separate buildings. The Chief Inspector and the Chief Ordnance Officer in different offices at Woolwich and Pimlico, the Quartermaster-General's representative in Whitehall, and the Contracts Officer in Tothill Street—all had to be consulted and make their reports, recommendations, and observations. On completion of their outward journey, the papers retraced their steps by the way they had come. Frequently the only action required was a formal concurrence, but this could not be dispensed with except in rare cases. The moving of the papers backwards and forwards usually took a fortnight or three weeks ; sometimes the journey had to be repeated for consideration of further points that had arisen or for reports on additional samples received too late for the first journey. In a complicated tendering, where samples had to be seen by two different inspecting officers, or where a number of trade patterns differing from the official pattern had to be considered, the time taken before all the orders were placed might run into five or six

weeks, even if every effort was made to expedite the case, and no delays occurred through mislaying of documents or a breakdown of the messenger service.

The result of this delay was that higher prices had to be paid. Manufacturers would make it a practice of quoting 'subject to immediate acceptance'; in a few days they would withdraw their previous offer, having perhaps in the meantime sold their goods to a merchant, or they would quote a higher price on the ground that their option on the raw material had expired. It often happened, too, that firms would be asked to tender a second time before they had heard whether their original offer had been accepted. This placed them in a position of uncertainty, against which they would naturally protect themselves by advancing the price. Another grievance of contractors was the long time they had to wait for payment. This again was due to the impossibility of speeding up the existing machinery beyond a certain point. Delays were inevitable and inherent in the system. The regulations were designed to prevent possible accidents, not to encourage the maximum speed—like the old law which required motor vehicles to be preceded by a man on foot carrying a red flag.

During this period there was much criticism in the Press and in Parliament of the exorbitant prices paid by the War Office and of the speculation and profiteering associated with Army contracts. The Financial Secretary of the War Office, replying to these criticisms in the House of Commons on November 23, 1914, expressed the general view when he said: 'Everybody, I think, will agree that a Government Department, not merely the War Office, but any Government Department, has often to pay more than a private individual.'¹ But few of the criticisms pointed to any solution of the real difficulties. Most of the critics were content with the suggestion that the Government should buy like a private business firm. But how would a private business firm do it? That was the problem. Many business men were at the time advising the Director of Army Contracts, but they did not profess that the solution was easy. The annual purchases of the largest London stores did not amount to a hundredth part of the annual requirements of the War Office. During the first two and

¹ *Parl. Debates, H. of C.*, vol. lxviii, col. 851.

a half years of war the aggregate value of purchases made by the Army Contracts Department amounted to more than £700,000,000. The largest London stores bought a small fraction of the national output ; the War Office wanted many articles in greater quantities and at a quicker rate than industry could produce them. A private firm would choose its own market and its own time for buying ; the War Office had to buy wherever it could and buy at once. Though a private firm had to buy to suit its customers, it could exercise a wide latitude in selecting the relatively cheapest goods ; the Army demanded the best obtainable, insisted on a rigid specification, and had no use for substitutes.

In spite of these difficulties many attempts were made, and much was actually done, to introduce more business-like methods, to break away from the established routine, and generally to speed up the machine. Innovations were made here and there. Expert buyers were appointed ; personal negotiations began to take the place of formal tenderings ; prices would be knocked down by bargaining and informal pressure. Manufacturers began to respond to the human appeal, and would quote lower prices as a personal favour or from a sense of patriotism. The Department began to drop the traditional attitude of aloofness and distrust, and to discard the secrecy with which the needs of the Army were usually guarded. Contractors who could be trusted were taken into confidence and told the full gravity of the position ; this generally proved to be a sure method of obtaining their co-operation.

Towards the end of 1914 energetic steps were also taken to widen the area of supply and induce as many firms as possible to tender for Army contracts. In peace-time the War Office list contained a limited number of specially selected firms ; most firms regarded it as a privilege to be on the list, but many important firms did not bother to get recognized as regular tenderers, because they found War Office business either too troublesome or perhaps not remunerative enough ; to do well as Army contractors, a firm had to specialize to some extent, or at least to be familiar with War Office specifications. This policy of exclusiveness had inconvenient results when demands became so large that the ordinary sources of supply dried up. The War Office had no

means of knowing the full extent of the manufacturing resources of the country in many of the items of Army equipment, and with the insistence still laid on peace-time specifications, it was sometimes doubted whether the experiment of trying new firms would be justified. This attitude had to be abandoned. In one item after another, every possible producer had to be enlisted and induced to tender. But here a difficulty arose. To find out all the possible firms capable of making each of the hundreds of different items which were in short supply, from horseshoes to razor blades, and from tents to brass buttons, would have required a large staff of travellers and inspectors. For a mere name was not sufficient. It was necessary to know, first, whether the firm really existed and had any plant, or was a mere blind for a firm of speculators; and secondly, whether it could really produce the article, and if so in what quantities. If it had had no experience, it had to be shown how to set about it. And lastly, many firms who had never thought of tendering had to be induced to try their hand; and it took some time to find such firms.

In all this work, the Contracts Department relied to a large extent on the assistance of the Employment Department of the Ministry of Labour and its exchanges. About 11,000 firms were inspected and reported upon by Labour Exchange officers during the first eighteen months of the war. Of this total several hundreds proved to be merely middlemen or agents. Early in the war a survey of the woollen and worsted industries was carried out at short notice by the Labour Exchanges in Yorkshire with a view to showing the possible expansion of khaki cloth manufacture. Similar inquiries were made later in the tailoring and shirt trades. Small saddlery firms were induced to group themselves together for War Office contracts. Efforts were successfully made to increase the output of biscuits, cork helmets, rum jars, climbing irons, field telephones, hosiery, buttons, glass bottles, scissors, mess tins, nail boxes, stove pumps, grindstones, and many other of the thousand and one miscellaneous items of Army equipment. This work not only helped the War Office by increasing production, but at the same time relieved unemployment and helped the Labour Exchanges to find work for applicants on their lists.

All this was useful as a beginning, but in the main the essential problem remained unsolved. Lord Rhondda, shortly before his death, stated that his object at the Ministry of Food had been to endeavour to 'suspend the laws of supply and demand'. It is doubtful whether the problem would have been formulated in this way in 1914; but substantially that was the miracle which both the War Office and its critics hoped might somehow be accomplished. If supply was limited and demand practically unlimited, market prices were bound to rise indefinitely. And if prices of materials required for the Army were certain to rise, everybody who wanted to make money would start dealing in them; profiteering in Army supplies would become the chief national industry. Nor was it merely the finished article which attracted the speculator; the profits to be made in raw materials and semi-manufactured articles such as wool and yarn were quite as sensational; and since these were required for many other purposes besides Army requirements, there could be no objection on patriotic grounds to a course which was merely regarded as 'business as usual'.

When purchases from stock had ceased to be necessary, and the War Office was able to deal direct with manufacturers, the question of raw and subsidiary materials began to attract special attention. What happened under the tendering system was that fifty or more manufacturers would enter the market at the same time, and each would endeavour to cover himself for the quantity of material he required in order to tender. If, for example, the inquiry was for 200,000 blankets, and fifty firms were invited to tender, each firm might buy, or obtain an option to buy, enough yarn to manufacture the whole quantity. In this way the effect of the original demand would be multiplied fiftyfold in the yarn market, and so on, in something like geometrical progression, in the markets for tops and raw wool. A constant succession of these vast orders, coming upon a trade which had at the same time a large demand for export and for home consumption, demoralized the market. Dealing ceased to be a matter of careful estimates of chances, and began to resemble an infallible system for breaking the bank. The only effective limit to the profits obtainable was the amount of money a man could borrow to finance his trans-

actions. It was authoritatively stated at the time that a complete stranger to the wool trade, with next to no capital, made £150,000 in six months by speculation in yarn.

Until the end of 1914 little attention could be given to the solution of these remoter problems. The whole energies of the Department were devoted to the task of obtaining sufficient supplies, and as soon as deliveries began to keep pace with current requirements, to the re-establishment of centralized buying for the whole Army. Until local buying had been stopped, it was no use trying to deal systematically with prices; and until headquarters was in a position to supply what was needed, it was impossible to stop local buying. But in the last two months of the year important steps were taken towards the replacement of competitive tendering and individual offers by a simpler and more rational procedure.

Hitherto associations of traders had been looked upon with great suspicion. Co-operation for any purpose was apt to encourage understandings as to price, if not actual collusion in tendering. But in the present emergency it was recognized that co-operation might be a good thing if it led to better organization, and understandings as to price might be useful if the object was to keep them steady. Conferences were therefore arranged with the executive officials of the Wholesale Clothiers' Association. The difficulties of the War Office and the full extent of its requirements were frankly placed before them, and a strong appeal was made to their patriotism to co-operate with the Department in obtaining these supplies at reasonable prices. The response was satisfactory. The manufacturers themselves were dissatisfied with the confusion and uncertainty entailed in the tendering system, and promised that if the War Office mended its ways and abandoned competitive tendering, they would secure by collective agreement and by concerted organization of production, that the supplies should be forthcoming at prices considerably lower than open competition would determine.

An agreement was thereupon made with the Wholesale Clothiers' Association for the supply of uniforms at an all-round flat rate for making up—so much for jackets, so much for trousers, and so much for great-coats. The War Office was to continue as

hitherto to supply the cloth at fixed 'issue' prices. It was realized in the course of negotiations that to arrange a flat rate for every class of manufacturer, large and small, efficient and inefficient, would mean that the large firm would get a bigger profit than the small one. But if the maximum output was to be obtained, any flat rate must enable the small marginal producer to pay his way. It was urged that the efficient firm was entitled to reap the benefit of its superior organization, and that it would be unfair to penalize him by paying him a lower price than the less efficient. To do so would, in fact, place a premium on inefficiency. Moreover, even the most efficient manufacturer would receive a lower price under this arrangement than he would be able to obtain under conditions of open competition. There was no question, therefore, that in the particular circumstances of an overwhelming demand and a limited supply, the arrangement was to the advantage of the War Office, and involved a considerable concession on the part of manufacturers. At a later date, when the machinery of the wholesale clothing industry had been greatly expanded and the War Office requirements had become more moderate, competitive tendering was restored, and the keen competition that resulted brought profits down to a much lower level.

Towards the end of 1914 the Association circularized its members and induced them by voluntary arrangement to put aside private orders and to concentrate all their energies upon increasing the production of Army supplies. In place of a continuous succession of piece-meal demands and individual tenders, the Association arranged the splitting up of the total requirements of the War Office for several months ahead among all their members. The chaos and confusion inseparable from the previous system came to an end; speculators and middlemen were eliminated; and the wholesale clothing industry settled down in a systematic way to the business of producing the vast quantities of uniforms required for equipping the New Army.

From this new departure four principles emerged which mark the first stage towards national organization and control under the War Office:

- (1) Abandonment of the system of competitive tendering.
- (2) Recognition and co-operation of Trade Associations.

- (3) Introduction of collective agreements covering the whole of a trade.
- (4) Substitution of a general uniform price over a period of time for a multiplicity of individual contracts at different prices.

The adoption of the new system represented a considerable advance, but it only touched the fringe of the problem. In many trades there were no manufacturers' associations with whom it was possible to conclude voluntary collective agreements. Secondly, the prices fixed by collective agreement still depended upon bargaining, in which the dice were necessarily loaded against the purchasing department; for the department could only guess at the cost of production while the manufacturers more or less knew them. Thirdly, agreements with manufacturers of the finished article had very little influence on the market for subsidiary materials, such as yarn and leather, and the raw materials wool and hides. And lastly, the principle of arranging uniform prices for the whole of an industry had no legal sanction behind it, and was liable to be upset by recalcitrant firms standing out for higher prices. The next developments, which consisted in the use of the power of requisitioning and the earliest attempt to introduce the costings system, will be described in the following chapter.

CHAPTER IV

REQUISITIONING AND COSTING IN THE JUTE INDUSTRY

Jute production and consumption — Importance for military purposes — Demand for sandbags — Course of prices up to March 1915 — Decision to requisition — Stocks at Liverpool — Negotiations at Dundee — Cost and market price — Profits of spinners — The Costings system first suggested — Objections to the plan — Appointment of agent firm — Increased output and deliveries — The plan in operation — Comparison of Government price and market price — Negotiations with Calcutta — Prices and quantities — An avalanche of sandbags — Economies affected.

JUTE is a vegetable fibre used for the manufacture of sacks, twine, packing-cloth, and coarse canvas. Jute fabrics are as essential to wholesale commerce as paper is to a shopkeeper; they are in universal and daily use throughout the world for wrapping and containing all kinds of produce.

The fibre is a monopoly of British India, its cultivation being confined to the provinces of Bengal and Eastern Bengal, and the Native States of Assam, Cooch Behar, and Nepal. The area under jute is normally rather more than three million acres, yielding an average crop of ten million bales of 400 lb. each. Before the war one bale cost about £5. Of the total production British India consumed more than half and the British Empire about two-thirds.¹

¹ The maximum consuming capacity of the jute spinning and weaving industry of the world in 1913 was approximately as follows :

	bales
British India	5,250,000
Great Britain	1,470,000
Germany	886,000
United States	650,000
France	593,000
Austria-Hungary	366,000
Russia	274,000
Italy	255,000
Spain	208,000
Belgium	152,000
South America	92,000
Holland	40,000
Sweden	36,000
Norway	10,000
Greece	5,000
Total	10,287,000

The jute mills of Great Britain and India are concentrated in two cities, Dundee and Calcutta, the former specializing in the finer class of goods, and the latter producing the cheaper and coarser qualities. This concentration of production and manufacture, and the comparative simplicity of the processes involved, made the jute industry specially suitable for the first experiment in control. Its great importance for military purposes for the Allies as well as for the British Army soon made the experiment inevitable. Since the jute industry was the first instance in which the War Office succeeded in 'suspending the laws of supply and demand' and obtaining its requirements at less than market prices, the early developments will be traced in some detail.

Jute products were required for the Army for a number of miscellaneous uses, but the most important item was sandbags for use in building trenches, earthworks, and dug-outs. Until early in 1915 the supply of sandbags was at the rate of about 60,000 per week. But when the campaign developed into stationary trench warfare, the demand for sandbags enormously increased. In March 1915 an urgent demand was received from the front for an immediate supply of five million bags. In May the demand was for six million per month, in July for twelve million, and in August for eighteen million. Even this proved insufficient. Every time new trenches were made hundreds of thousands of sacks were wanted; empty sandbags were made to serve every kind of purpose from pillows to nose-bags. In August the Army announced that it would require thirty-five million for September, thirty-eight million each in October and November, and forty million in December. At the same time the demands of all the Allies had increased proportionately. At the end of the war the total number of sandbags supplied to the British and Allied Armies had reached the gigantic total of 1,186,000,000.

The course of prices in the jute industry during 1914, 1915, and 1916 is given in the diagram on page 451. The average price of raw jute from July 1913 to June 1914 was about £32 per ton. The high prices ruling in the early part of 1914 stimulated the sowing of a larger acreage than usual, with the result that the crop yielded was about five per cent. greater than the normal yield. This fact caused a gradual fall in prices in June and July

1914 from £33 to £30 per ton. On the outbreak of war a slump occurred owing to the collapse of the exchanges and the cessation of demand from Germany and Austria. The lowest point was reached at the end of November 1914, when jute could be bought at £12 to £14 a ton, and $10\frac{1}{2}$ oz. hessian cloth at $2\frac{1}{4}d.$ a yard compared with $3\frac{1}{2}d.$ in November 1913. Trade then began to revive. A vigorous demand from abroad sprang up, especially from European neutrals. The War Office began to invite competitive tenders for large supplies of jute products for the Army. The outlook for the future looked promising. By the beginning of March raw jute had recovered by 50 per cent. to £21 per ton, and yarn and cloth had returned to their pre-war level. That was the position when the demand for five million sandbags was received.

In view of the urgency of the demand telegraphic inquiries were sent to every firm on the War Office list, and Chambers of Commerce in all important centres were asked to make the requirements known as widely as possible. Offers began to pour in subject to immediate acceptance; but the number offered was in most cases insignificant, the specification unsatisfactory, and the prices too high. Then an incident occurred which roused the War Office to drastic action. The largest firm of second-hand bag merchants telegraphed an offer to supply the whole quantity and more at a price about three times the highest hitherto paid. No conditions as to delivery were stated. Obviously the firm could not hold such a large amount at the time, but counted on being able to buy what was wanted at prices which would yield a satisfactory profit. If only they could keep the War Office off the market by contracting to supply its full requirements, there was no reason why the price should rise above their quotation. At the prices then ruling their quotation would allow a profit of more than 100 per cent., which seemed a safe enough bargain. But the offer was rejected. The War Office refused to swallow the bait, and decided that something drastic must be done.

In March 1915 there were no powers under the Defence of the Realm Act which enabled the Government to take possession of anything it might require. But there was an old clause in the annual Army Act which conferred the power of requisitioning

horses and vehicles, and this had recently been amended so as to cover warlike stores in general. The procedure was complicated. A statement had to be signed by a General Officer Commanding certifying that one of His Majesty's Principal Secretaries of State had declared that a 'state of emergency' existed. This had to be presented to a Justice of the Peace, who signed a second form instructing the Chief Constable and his subordinates to render all assistance to the military authorities and to serve requisitions on the owners of the goods required. When a third form had been signed by the police constable and handed to the owner, the process of requisitioning had been accomplished in due legal form.

This procedure was followed early in March 1915. Two officers were sent to Liverpool and made a tour of the warehouses where the bag merchants kept their stocks. In a single afternoon they succeeded in obtaining one and a half million second-hand grain sacks. As it was Saturday many of the owners were away from their offices. When they returned on Monday and learnt that their whole stock of second-hand bags had been impounded by the War Office, they wanted to know what price they were going to receive. The provisions of the Army Act laid down that the price to be paid for goods requisitioned should be the 'fair market price in the opinion of the purchasing officer'; and that an appeal might be lodged against his decision with a judge of the County Court. The price would then be assessed on the basis of the market price as between a 'willing buyer and a willing seller'. Fortunately for the purchasing officer the question of what was a fair market price was a matter about which it was possible to hold a variety of opinions. It might be held on the one hand that the market price was the highest price obtained by any dealer on the day before the requisitioning took place. But a few isolated transactions, influenced largely by the huge demand which had come from the War Office and from the Allies, could hardly be admitted as a fair basis for determining the market price. 'Market price' was a vague term, but might fairly be claimed to involve a number of transactions extending over a reasonable period. It might also be argued that the fact that the War Office was compelled to get the goods irrespective of price, rendered it an 'unwilling' rather than a 'willing' buyer, and that therefore,

in arriving at the price, the hypothetical effect of the War Office demand should be ruled out of account. Whatever the correct interpretation of the Act might be, the purchasing officer was clearly entitled to hold any opinion he chose. He accordingly fixed the price at 2*d.* per bag on the basis of values ruling before the abnormal War Office demand had come on the market. Having arrived at this opinion, he maintained it in spite of the protests of the bag merchants, and in spite of the fact that some of them, in anticipation of selling to the War Office, had actually bought at a higher price than the figure he fixed. Bags had changed hands at as much as 2½*d.*; and the quotation received by the War Office which prompted the requisitioning was 6*d.* per bag. Invoking the Army Act had thus saved £25,000 on a million and a half bags. Within three weeks the bags had been converted to the standard size required and dispatched overseas.

While the available stocks of second-hand bags were being seized in Liverpool, steps were also being taken to mobilize the manufacturing resources of Dundee. A meeting of jute manufacturers was held at Dundee, at which the War Office representative explained the extent and urgency of the Army's requirements. Dundee, at the time, happened to be exceptionally full up with private orders. The export trade was booming; it was even alleged that large quantities of jute yarn were finding their way into enemy countries. Clearly there was no chance of buying the vast quantities of bags required in the ordinary course of business. But the needs of the Army could not wait for the completion of private contracts. If private contracts stood in the way they would have to be broken. Under one of the earliest regulations made under the Defence of the Realm Act, power was taken to require manufacturers to place their output at the disposal of the Admiralty or Army Council, and compliance with any such requirement was stated in the Act to be a good defence in proceedings for breach of contract. This point having been cleared up, the manufacturers readily agreed to do all in their power to meet the Army's demand, and undertook to put aside their private work and devote their whole output for three weeks to the manufacture of sandbags.

Meanwhile, as business men, they wanted to settle the question of price there and then. This the War Office representative

refused to do. He explained that a formal letter would be addressed to each manufacturer applying Regulation 7 of the Defence of the Realm Regulations. This Regulation provided that payment should be made at an agreed price or in default of agreement at such prices as might be determined by the arbitration of a Judge, in Scotland a Judge of the Scottish Court of Session selected by the Lord President of the Court of Session. A discussion then took place as to the basis on which it would be possible to reach an agreement satisfactory to both parties. The Dundee manufacturers naturally claimed that they should receive the market price. A reference to the diagram on page 451 will show that the price of jute cloth had now risen to 4*d.* per yard compared with the 2½*d.* at the beginning of December 1914, an increase of 78 per cent. in less than four months. Cloth was 20 per cent. above the average level of prices for the twelve months prior to the war, while the raw material was 30 per cent. below it. Whether they were fair or not, market prices were clearly giving very large profits to the manufacturers.

The War Office representative argued that in time of war it was not always reasonable to demand the market price; that the market price for jute goods had been unduly inflated by the demands of the Army; that the conditions of a free market no longer existed owing to the act of requisitioning; and that it was no use speculating what the market price might have been if the War Office had not intervened and forcibly postponed private contracts. Some other basis must be taken for settling the price. He suggested that the fairest course would be to fix the price not on market values but on the actual cost of production with the addition of a reasonable profit. This suggestion met with little support. The general view was that, though this might be ideally the fairest system to adopt, it was quite impracticable. 'You cannot get away', it was said, 'from the laws of supply and demand.' Certainly there were difficulties, and some of them were pointed out. The largest manufacturers were both spinners and weavers, but the majority were either one or the other. The cost of production of the combined firm, which only had to buy raw jute, would be much lower than that of the weaving firm, which had to pay the market price for its yarn. How was this difficulty to

be met? The reply was that the value of the yarn required should also be assessed on the basis of cost. But how was a private firm to buy its yarn at less than the market price? The War Office would presumably have to requisition the yarn also. Finally, what about the raw material? Was it proposed to requisition raw jute from the natives of India at its cost of production? After this *reductio ad absurdum*, as it then appeared, the discussion was adjourned. It was clear that the opinion of Dundee was fairly unanimous in regarding an attempt to obtain goods for less than they would fetch in the open market as mere confiscation. They argued that if the Government wanted to deprive them of part of their profits, the fairer and more straightforward course would be to increase taxation all round and put up the Excess Profits Duty. It was in any case unfair to single out Dundee for special treatment.

The question of price was not settled at the conference, but by common consent was postponed for further consideration and discussion. Meanwhile, the manufacturers were legally bound by the requisition order, and at once started operations. Contracts were broken on a wholesale scale; yarn and cloth already sold and awaiting delivery were diverted to the War Office; the purchasers had no recourse and had to wait. The export trade in certain lines came to a standstill. Important trades were suddenly deprived of packing material; the meat importers complained that if they could not get their beef wrappers, the import of frozen meat would come to an end. The position was explained to the factory girls, and the rate of production at once increased. Dundee for a time thought of nothing but the needs of the Army in the trenches. By almost superhuman efforts, which surprised even the trade itself, four and a half million sandbags were completed and dispatched to the front within three weeks.

The question of price was soon settled by bargaining and compromise. The War Office obtained the assistance of experts in the trade, who knew the technicalities and could advise when the price asked was unreasonable. Prices were eventually fixed at rather less than private purchasers had hitherto been compelled to pay; but no attempt was made during this preliminary period to unravel all the problems of 'cost of production'. When stocks

of cloth were requisitioned from merchants, they received what they had paid for it, with the addition of a small profit; not the price at which they had sold it, or might have sold it but for the War Office intervention. Similarly, manufacturers' quotations were beaten down below the market prices previously ruling. Voluntary contracts for delivery during May and June were entered into, without interference with private orders, at prices more favourable to the War Office than those quoted to private purchasers. A spirit of moderation and accommodation prevailed, and speculation received a check. This was reflected in the course of prices in the open market. For the first time since the end of November 1914 a general fall in prices took place, as will be seen from the slight depression which appears on the diagram during the months of April and May.

It was now possible to review the price problem at more leisure. Was it inevitable that the War Office should always be in competition with private trade? It was no longer true that the Government necessarily had to pay more than private individuals. The weapon of requisitioning put it in a stronger position for bargaining, and manufacturers had certainly shown themselves ready to make concessions. But this did not make any substantial difference. The manufacturer of cloth still had to buy his yarn in the open market. Even if the weavers were content with a reasonable profit, the spinners would still be reaping the full benefit of the laws of supply and demand. An investigation of the costs of production, with the assistance of expert advisers, showed that the position at the end of June was roughly as follows :

	£
Market price of one ton of jute	20
Cost of spinning into yarn	12
Total cost of production of yarn	32
Spinner's profit per ton	18
Market price of one ton of yarn	50
Cost of weaving into cloth	6
Total cost of production of cloth	56
Weaver's profit per ton	6
Market price of one ton of cloth	62

The spinner was thus obtaining a profit of 56 per cent., while the weaver was getting only a normal 10 per cent.

One step had already been taken which pointed in the right direction. Hitherto when the War Office had wanted bags, they had had to pay the market price of the complete bag. The sewing of bags was carried on by separate firms called public calenders, which worked on a commission basis with charges based on a common tariff. Bags would be sold to the War Office by merchants who bought the cloth and had it sewn up on commission. This had now stopped. The War Office itself requisitioned the cloth and had it sewn up by the public calenders.

Apparently this principle might be extended. It should be possible to requisition yarn and get it woven on a commission basis. The process might even be carried a step farther back. The Government might buy its own raw material in Calcutta, ship it to this country, and get it spun into yarn by the spinner. Provided spinners and weavers could be induced to fall in with these arrangements and work for an agreed commission or 'margin' sufficient to cover their expenses and a reasonable profit, immense economies would be possible, and the whole process of obtaining supplies would be independent of market prices in this country from start to finish. The laws of supply and demand, if not defeated, would at least be temporarily suspended, so far as supply and demand for the Army was concerned.

The objection to such elaborate measures of State intervention was that they involved the War Office in intricate commercial operations for which it was totally unprepared. It was as much as the War Office could do to keep pace with the demands from the front by the ordinary process of buying; it had neither the machinery, nor the staff, nor the experience to carry out a more ambitious programme. There were no precedents to go upon. Perhaps Parliamentary sanction would be necessary; doubts were even expressed whether the War Office had any statutory powers to engage in trading operations. But the most convincing argument against it was that it would mean the Government undertaking to do work which was essentially the business of the manufacturer, namely, the buying of his raw material. Each manufacturer knew his own business best; it was absurd to

suggest that officials in London could successfully spoon-feed a whole trade. Firms would be supplied with materials which were unsuitable for them, and the resulting confusion and discontent might seriously jeopardize supplies. Finally, the sceptics argued, it was the business of the War Office to get supplies ; it was the business of the Chancellor of the Exchequer to deal with excessive profits. Prices were bound to rise in war-time, and high profits did not so much matter, so long as the greater part was returned to the Exchequer through the Excess Profits duty.

It was true that the higher prices the War Office paid, the greater would be the yield of the Excess Profits duty ; but it was also true that the more economically it could purchase the less would be the burden on the ordinary tax-payer. It was this point of view that appealed to the House of Commons and the Press, when they complained of Government extravagance. So strongly was this view expressed, that the Army Contracts Department decided that no expedient by which prices could be reduced must be left untried. From this time onwards the policy of buying raw materials, and fixing the margin to be paid for each stage of manufacture on the basis of actual cost and a fair profit, became the goal consciously aimed at in every trade where the total demand so far exceeded the productive capacity as to yield exorbitant profits to manufacturers.

The objection that the War Office was unfitted to look after the technical details of commercial operations of this kind was met in the jute industry by appointing Messrs. A. & S. Henry, Ltd., a large firm of merchants in Dundee, to act as Government agents, and entrusting to them the duty of purchasing jute goods and superintending the various stages of manufacture. The agreement provided that the terms of remuneration payable to the firm in consideration of their undertaking all duties in connexion with the purchase, inspection, storage, and dispatch of jute goods, on behalf of the British and Allied Governments, should be on a sliding scale, with a fixed maximum which left little if any profit after paying expenses.

The agreement came into force on June 1, 1915. A War Department Jute Goods Depot was opened in Dundee under the management of the agent firm, and henceforth the whole business

of purchase, inspection, storage, and dispatch of jute goods was conducted on the spot by an efficient and specialized organization, thus relieving Whitehall, Woolwich, and Pimlico of a small fraction of their current work.

The way was now open for putting the first part of the programme into effect. Negotiations were opened with the spinners, and arrangements were made whereby they undertook to supply yarn to the order of the War Office at special prices based on the cost of raw material, the cost of spinning, and a reasonable margin of profit. The yarn was not bought outright. It was requisitioned and ear-marked for Army requirements, but was not as a rule paid for by the War Office. Payment was made by the weaving firm to whom the spinner was instructed to deliver it. Similar arrangements were made with the weavers, and with the firms which both spun and wove. So far as possible, the burden was spread evenly over the whole trade. For some months it was necessary to take nearly half the manufacturing output of Dundee for military purposes. The agent firm had to keep exact records of orders placed, of future requirements, and of current deliveries from firm to firm ; constant adjustments had to be made, mostly by telephone or by word of mouth, in order to ensure an even flow of material and to keep the machinery constantly at work. The Jute Goods Depot took the place of the yarn and cloth market, and became a clearing house for the transfer of products at fixed prices.

That the new system worked satisfactorily is proved by the following figures showing the monthly demands from the Army overseas and the number of sandbags dispatched each month :

				Demanded	Dispatched
April	.	.	.	5,000,000	5,414,000
May	.	.	.	6,000,000	6,619,350
June	.	.	.	6,000,000	6,607,000
July	.	.	.	12,000,000	8,192,000
August	.	.	.	18,000,000	17,650,000

In the last week in July the Dundee holidays took place. But for the holidays the July figure would have reached about 11,000,000. The deficiency was made good by drawing on a reserve of 6,750,000 accumulated overseas.

An idea of the effort required to produce these quantities may be gathered from the fact that during July and August practically every sewing machine in the Dundee factories was employed in sewing sandbags. The normal rate of production was about 1,200 a day per machine. But an exceptionally skilled girl could sew as many as 2,000 bags a day, which works out at about four a minute.

In negotiating an agreed basis of prices, detailed examinations of costs of production were made with the assistance of a local firm of chartered accountants. Though under the Defence of the Realm Regulations, as they then stood, there was no obligation on the part of the spinners to accept the 'costings system' or even to allow the Government to examine their costs, they voluntarily agreed to the fixing of prices on this basis, partly from a genuine desire to meet the wishes of the War Office, and partly because they were reluctant to resort to arbitration and have the matter fought out in open court. The level of prices so fixed was about 25 to 30 per cent. below market prices. Jute yarn selling for 3*s.* 9*d.* per cop in the open market was requisitioned at 2*s.* 8*d.*, and jute cloth worth 4½*d.* per yard was obtained for 3*d.* per yard. Compared with the previous statement of costs and profits, the position was now approximately as follows :

	In the open market	For the War Office
	£ s. d.	£ s. d.
Price of one ton of jute (common quality)	20 0 0	20 0 0
Cost of spinning into yarn	12 0 0	12 0 0
Total cost of production	32 0 0	32 0 0
Spinner's profit	18 0 0	5 0 0
Price of one ton of yarn	50 0 0	37 0 0
Cost of weaving into cloth	6 0 0	6 0 0
Total cost of production	56 0 0	43 0 0
Weaver's profit	6 0 0	3 10 0
Price of one ton of cloth	62 0 0	46 10 0

It will be seen from the diagram of prices that the 'requisition' prices of yarn and cloth happen to correspond fairly closely with the average prices of the previous two years ; but this result is

largely accidental. The fall in the price of raw jute would have justified a lower level, had it not been that the increased cost of production offset the reduction in the price of raw material.

Early in August it became evident that the demand for sandbags was rapidly becoming too great for Dundee to cope with unaided. Attention was therefore turned to Calcutta, where the jute manufacturing resources were the largest in the world, and the annual output of cloth was nearly four times as great as Dundee's. Market prices in India, as shown on a separate diagram on page 453 had followed a parallel course. After the outbreak of war, raw jute had fallen rapidly to 30 rupees per bale in December 1914 compared with 80 rupees per bale in the beginning of the year. The market for jute cloth was completely disorganized, and no quotations are available between the end of July 1914 and the beginning of January in the following year, when trading was resumed at 11 rupees per 100 yards compared with 16 rupees per 100 yards a year before. From January onwards the same causes which affected the Dundee market caused a recovery in Calcutta. By March the price of cloth had risen to 16.8 rupees. The first War Office intervention at Dundee at the end of March was reflected in a slight depression during the next two months, but by the end of June the level of cloth prices had reached 21.8 rupees, a rise of nearly 100 per cent. in six months. During the same period raw jute rose about 50 per cent. The effect of the introduction of the 'costings system' at Dundee on July 1st is shown by a sympathetic drop of 10 per cent. in Calcutta during that month. In September appears a new line for cloth called 'requisition price', starting at 13.75 rupees per 100 yards, and falling to 12 rupees in January 1916. This was the effect of applying the 'costings' principle to Calcutta.

The War Office had no legal power to requisition the output of mills in India, still less to fix prices on the basis of cost and fair profit. It was possible, however, to bring indirect pressure to bear, first by inducing the Allied Governments to make their purchases jointly rather than in competition with one another, and secondly, by persuading the Government of India to prohibit export except under licence. With the co-operation of the India

Office both these steps were taken. Though the Allied Governments agreed in principle through their representatives in London to make their purchases of jute goods only through the agency of the British War Office, competitive purchases by Allied traders did not in fact stop until the second course was adopted. Export of jute goods was prohibited even to Allied countries, and no licences were granted if the goods were considered to be for military purposes. Co-operation with the Allies was thus rendered effective by preventing them obtaining their requirements in any other way.

Negotiations to purchase were successfully carried through in August and September. The Jute Mills Association of Calcutta undertook to provide fifty million sandbags monthly at a price of 17s. per 100 for the British Government, and at corresponding prices, according to quality, for the Allied Governments. This was a reduction of about 30 per cent. compared with market prices. The British requirements alone were thirty-five million in September, thirty-eight million each in October and November, and forty million in December. Russia demanded thirty million, France twenty million, and Belgium six million for delivery up to the end of the year.

From this time onwards Calcutta provided the bulk of the supplies, and Dundee was used as a reserve, to make good deficiencies. Large reserve stocks were accumulated, and supplies could be diverted at short notice to any theatre of war. Early in 1916 an urgent request was received from Egypt for an immediate supply of thirty million sandbags for use in defending the Suez Canal against the Turks. Within eight days ships coming from India were diverted to Alexandria, and had started discharging sixteen million bags. More ships were on the point of arriving with further millions, when a telegram was received asking that further deliveries should be suspended until the masses of bags congesting the quays, railways, and depots had been cleared away.

This experience showed that the largest demands could be met promptly and without difficulty, and that the situation was now well in hand. The system adopted had produced the supplies required, and the prices paid were reasonable and satisfactory.

In their report of August 8, 1916, the Public Accounts Committee of the House of Commons drew attention to the control exercised by the Government over the jute trade, and noted with approval that the methods adopted had resulted in an estimated saving of £3,000,000 a year on sandbags alone.

The success of this early experiment had far-reaching consequences in the development of State control.

CHAPTER V

THE LEGAL BASIS OF CONTROL

Defence of the Realm Act — Royal Prerogative — Losses Commission — Compensation a matter of grace — Requisitioning under the Army Act — ' Fair market value ' — Regulation 2 B — Requisitioning from merchants and growers — Maximum prices and requisitioning — Amendment of Regulation 7 — Prices to be fixed with reference to cost of production and fair profit without regard to market price — Compulsory examination of books — February 1916, the turning-point in costings system — No Parliamentary sanction — Regulation 30 A — Prohibition and regulation of private dealings — Licensing and price-fixing — Government monopoly — Regulation 2 E the most comprehensive basis for control — Were the regulations *ultra vires* ?

IN the previous chapter an account has been given of the earliest application of requisitioning and costing on a large scale, and reference has been made to the insecure legal foundations on which they rested. For an understanding of subsequent developments, it is necessary to give a brief description of the gradual evolution of a legal basis for control.

The Defence of the Realm Act was passed by Parliament in August 1914, and conferred wide and undefined powers upon the Government to make regulations for ensuring ' the public safety and the defence of the Realm '. The earliest regulations made under the Act conferred certain powers on the Admiralty and the Army Council, such as the right to take possession of land and factories, and to require manufacturers to produce goods for naval and military purposes. But there were no powers wide enough to enable the War Office or any other Department to exercise complete control of a trade, to determine the basis on which payment for goods requisitioned should be made, to regulate dealings, or to prescribe maximum prices. Not only were such measures *ultra vires* the Regulations as they then stood, but it was generally considered that it would be *ultra vires* the original Act to amend the Regulations so as to cover them.

Under the Defence of the Realm Act, no provision was made for settling the question of compensation. The theory was that in the absence of any express provision by Act of Parliament, there was no legal right to compensation whatever ; that the

Crown had the right to take possession of any private property by virtue of the Royal Prerogative, and that any compensation paid was purely a matter of grace. On March 31, 1915, a Royal Commission was set up to assess claims for compensation in such cases and to award *ex gratia* payments for losses incurred owing to the exercise of the Royal Prerogative. The wording of the preamble to the Commission's letter of appointment is as follows :

Whereas We have deemed it expedient that a Commission should forthwith issue to enquire and determine, and to report what sums (in cases not otherwise provided for) ought in reason and fairness to be paid out of public funds to applicants who (not being subjects of an enemy State) are resident or carrying on business in the United Kingdom, in respect of direct and substantial loss incurred and damage sustained by them by reason of interference with their property or business in the United Kingdom through the exercise by the Crown of its rights and duties in the Defence of the Realm : Now know ye that We, &c.¹

A full discussion of the legal theory underlying the problem of compensation falls outside the scope of the present inquiry. But it is important to note that this theory of the Royal Prerogative, whether valid or not, was acted upon throughout the war ; that until an adverse decision was given by the House of Lords after the war was over, it was accepted without question by the Courts, including the Court of Appeal ; and that it was thus as much a part of the law of the land as any Act of Parliament.² It is also important to note that the Defence of the Realm Losses Commission laid it down as a general principle that claims for compensation could only be admitted in the case of individuals who could prove that they had suffered exceptional interference specially directed against themselves. If damage was suffered owing to an Order which was of general application and not restricted to particular individuals, no compensation was payable. The Crown could not undertake to compensate all persons whose business suffered from the effect of war measures universally and impartially applied.

¹ The full text is given in Appendix 2.

² In 1915 the Shoreham Aerodrome case was decided in favour of the Crown by the Court of Appeal. C. A. (1915) 3 K.B. 649. It never went to the House of Lords, since the Government compromised for fear of an adverse decision. In 1920 the De Keyzers Hotel case was decided against the Crown on appeal to the House of Lords. H. L. (E.) [1920] A. C. 508.

The Royal Prerogative thus came to play an essential part in the development of control. It was by virtue of the absolutist theory that the subject had no legal right to compensation against the Crown, that the tyranny of market prices was overthrown. It was because compensation for property requisitioned need only be made *ex gratia* that the costings system could be, and was, legally enforced; and it was the principle laid down by the Defence of the Realm Losses Commission that no compensation was payable for losses inflicted by measures of general application, which made the régime of maximum prices and the prohibition of private dealings administratively possible without causing State bankruptcy. It was explained in the House of Commons on the first reading of the Indemnity Bill on May 3, 1920, that if the decision of the House of Lords which repudiated this theory was not superseded by legislation, innumerable claims would be opened up and the State would be faced with liabilities for compensation running into hundreds of millions of pounds.¹

The attempts made by the War Office early in 1915 to check the constant rise in market prices of jute goods were of two kinds: first, the seizure of stocks in merchants' hands, and secondly, the requisitioning of the future output of manufacturers. The two cases present quite different problems and must be kept distinct.

The first case was originally covered by Section 115 of the Army Act, which provided that the price to be paid for goods seized from the owner should be based on the 'fair market value'. But since the market value was all the time being inflated by the huge demand for military purposes, this provision rendered requisitioning useless as a means of reducing prices. It would be no deterrent to the speculator; unless he was hoarding for a further rise, it would be a matter of indifference to him whether he sold his stocks by voluntary agreement or had them requisitioned at their market value. Indeed, it might be argued that the market value was precisely the price which the War Office would have had to pay, if it had not requisitioned. When second-hand sacks were requisitioned at Liverpool, the circumstances were in many ways exceptional. Since the huge demand for sandbags had only recently come on the market, and since action

¹ *Parl. Debates, Commons*, vol. cxxviii, col. 1765.

had been taken fairly promptly, it was possible for the purchasing officer to discount the greater part of the effect of this demand and still maintain that the price paid was a fair market price. Even so, the result was that certain dealers had to part with their goods at a price actually lower than that which they had paid for them a day or two before. Though the principle adopted may have been justifiable in the particular circumstances (some of the dealers who escaped without loss were inclined to welcome the action of the War Office as a well-deserved punishment inflicted on their rivals for speculating in Army supplies), it obviously could not be universally applied without inflicting the greatest hardship on bona-fide traders and paralysing legitimate commerce. If the market price was unfair to the Government, anything less than the market price would often be grossly unfair to the individual trader.

No advance in the solution of the price problem could therefore be looked for by occasional requisitioning of merchants' stocks under the procedure laid down by the Army Act. Recourse was therefore had to an amendment of the Defence of the Realm Regulations.

In February 1916 an amendment of the Defence of the Realm Regulations was made which superseded Section 115 of the Army Act. It gave the Army Council power, under Regulation 2 B, 'to take possession of any war material, food, forage, and stores of any description and of any articles required for or in connexion with the production thereof'. In the absence of any provision as to price, holders would have no legal recourse, and in the absence of agreement would have to appeal, not to the Courts, but to the Defence of the Realm Losses Commission. This was an improvement on the Army Act, but it still left doubt as to the principle on which 'in reason and fairness' payment should be made in such cases. Accordingly a year later Regulation 2 B was amended, and express provisions were laid down as to the basis on which compensation should be paid. A distinction was made between stocks seized in merchants' hands, and food, forage, or war material requisitioned from the producer. In the latter case the chief consideration was to be not the market price, but the cost of production; in the former case the provisions were

more complicated, being designed on the one hand to discourage mischievous speculation and hoarding, and on the other hand to safeguard the bona-fide trader against loss. Regard was to be had to the price paid for the goods, provided that that in itself was not unreasonable or excessive, and to the rate of profit normally earned in selling such goods; but a person who had acquired them 'otherwise than in the usual course of his business' was to receive only a reduced rate of profit or even no profit at all. The full wording of the Regulation is as follows:

2 B. It shall be lawful for the Admiralty or the Army Council or the Minister of Munitions to take possession of any war material, food, forage, and stores of any description and of any articles required for or in connexion with the production thereof.

Where any goods, possession of which has been so taken, are acquired by the Admiralty, Army Council, or the Minister of Munitions, the price to be paid in respect thereof shall in default of agreement be determined by the tribunal by which claims for compensation under these regulations are, in the absence of any express provision to the contrary, determined.

In determining such price, regard need not be had to the market price, but shall be had:

- (a) if the goods are acquired from the grower or producer thereof, to the cost of production and to the rate of profit usually earned by him in respect of similar goods before the war and to whether such rate of profit was unreasonable or excessive, and to any other circumstances of the case;
- (b) if the goods are acquired from any other person than the grower or producer thereof, to the price paid by such person for the goods and to whether such price were unreasonable or excessive and to the rate of profit usually earned in respect of similar goods before the war, and to whether such rate of profit were unreasonable or excessive and to any other circumstances of the case; so, however, that if the person from whom the goods are acquired himself acquired the goods otherwise than in the usual course of his business, no allowance, or an allowance at a reduced rate, on account of profits shall be made.

Provided that where by virtue of these regulations or any order made thereunder the sale of goods at a price above any price fixed thereunder is prohibited, the price assessed under this regulation shall not exceed the price so fixed.

If, after the Admiralty or the Army Council or the Minister of Munitions have issued a notice that they have taken or intend to take possession of any war material, food, forage, stores or article in pursuance of this regulation, any person having control of any such material, food, forage,

stores or article (without the consent of the Admiralty or Army Council or the Minister of Munitions) sells, removes, or secretes it, or deals with it in any way contrary to any conditions imposed in any licence, permit, or order that may have been granted in respect thereof, he shall be guilty of an offence under these regulations.

It will be noticed that the Regulation contains a further provision that where a maximum price had been fixed for any commodity requisitioned, the compensation payable should not exceed the maximum price. This clause meant that the Government could seize private property and virtually fix its own price, a power implicit in the doctrine of the Royal Prerogative, but never yet so openly avowed. But a due regard for legal form was shown. On one occasion when the War Office desired to requisition certain classes of woollen material in merchants' hands, an order was drafted requisitioning the goods and fixing prices at the same time. The Department's legal advisers, however, objected to this; they explained that though it was lawful to fix a maximum price and then to requisition, it was not lawful to requisition and fix maximum prices in the same order. The War Office accordingly adopted the expedient of issuing two orders following closely one after the other, the first, a Maximum Prices Order, and the second, a Requisitioning Order. The result was the same, but the scruples of the legal experts had been respected.¹

The later history of Regulation 2 B has been inserted out of its chronological order, so as to complete the account of the way prices were fixed when goods were requisitioned from stock—the problem that faced the purchasing officer at Liverpool.

Attention must now be given to Regulation 7, which already existed in its original form in March 1915, and was brought into use in requisitioning the output of Dundee manufacturers. In the case of manufacturers' output the goods requisitioned are not yet in existence; they have not been bought and sold and passed through a number of hands in the open market; at the time when

¹ In February, 1920, in the Newcastle Breweries case, Regulation 2 B was declared to be invalid and the petitioners were said to be entitled to the market price for rum requisitioned by the Admiralty. (1920) 36 Times L. R. 276 and (1920) 1 K. B. 854. Before however the case was heard on appeal, it was cleared up by the Indemnity Act, 1920, 10 & 11 Geo. V, c. 48, which by implication validated this and other Regulations.

they are ordered even their future market value is to a certain extent problematical, and depends on the future course of market prices. Further, the manufacturer cannot be said to own goods not yet in existence, though he may own the raw materials. What he is required to do under a Requisitioning Order is to perform certain operations which will transform these materials into the goods required. In a sense, then, it is the raw materials and not the future goods which are requisitioned ; and the manufacturer is merely instructed to work them up. So long as he receives the full value for his raw materials and the actual expenses of working them up, and in addition is granted a reasonable rate of profit comparable to what he would have received in normal times, he has suffered no damage. Requisitioning at less than market prices may therefore be fair and reasonable to the manufacturer when it is unfair to the merchant. For the manufacturer, though he is deprived of future profits, does not incur a loss ; whereas the merchant, though he may have bought the goods a long time ago when prices were lower, may equally well have bought them only the day before, and consequently will lose money if he receives less than the market price.

In 1915 Regulation 7 ran as follows :

The Admiralty or Army Council or the Minister of Munitions may by order require the occupier of any factory or workshop in which arms, ammunition, or any warlike stores or equipment, or any articles required for the production thereof are manufactured, to place at their disposal the whole or any part of the output of the factory or workshop as may be specified in the order ; and the occupier of the factory or workshop shall be entitled to receive in respect thereof such price as, in default of agreement, may be decided to be reasonable having regard to the circumstances of the case by the arbitration of a Judge of the High Court selected by the Lord Chief Justice of England in England, by a Judge of the Court of Session selected by the Lord President of the Court of Session in Scotland, or by a Judge of the High Court of Ireland selected by the Lord Chief Justice of Ireland in Ireland.

If the occupier of the factory or workshop fails to comply with the order or without the leave of the Admiralty or Army Council or the Minister of Munitions delivers to any other person any part of the output of the factory or workshop to which the order relates he shall be guilty of an offence against these regulations.

For the purpose of ascertaining the amount of the output of any such factory or workshop or any plant therein the Admiralty or Army Council

or the Minister of Munitions may require the occupier of any such factory or workshop, or any officer or servant of the occupier, or where the occupier is a company any director of the company, to furnish to the Admiralty or Army Council or the Minister of Munitions such particulars as to such output as they may direct, and if any such person fails to comply with any such requirement he shall be guilty of an offence against these regulations.

The important phrase in this Regulation is the following : 'the occupier of the factory shall be entitled to receive such price as, in default of agreement, may be decided to be reasonable having regard to the circumstances of the case by the arbitration of a judge.' This express provision as to price differentiated Regulation 7 from other Regulations under the Act, and removed compensation for requisitioning the output of a factory from the jurisdiction of the Defence of the Realm Losses Commission. No case had yet gone to arbitration ; it was therefore uncertain how a judge would interpret the words 'reasonable having regard to the circumstances of the case'. At that time he could hardly fail to be influenced by the parallel case of goods requisitioned under Section 115 of the Army Act, where it was expressly provided that payment should be made on the basis of the 'fair market value'. In any case the very indefiniteness of the clause as it stood largely deprived the power of requisitioning of its value as a means of inducing manufacturers to accept what the War Office would regard as reasonable prices. In Dundee manufacturers had hitherto accepted the War Office interpretation of the word 'reasonable'. They had entered into voluntary agreements to supply goods at prices about 25 per cent. below those ruling in the open market, and these agreements had the force of legal contracts. But after the system had been running for some months, one of the largest firms began to question the justice of the new principle, and threatened, when the time came for renewing the agreement, to refer the matter to arbitration. The War Office at once realized that an unfavourable decision would knock the bottom out of the whole system of control of prices, and that some means must be found for strengthening the legal foundations of its policy.

This proved a task of considerable difficulty and complexity. The legal advisers of the Department were of the opinion that

since the Defence of the Realm Act contained no provisions as to prices, any regulation which purported to fix prices or to determine the basis on which they should be fixed, might be construed as *ultra vires*. This may appear surprising in the light of subsequent developments ; but the theory and practice of later years must not be imported into a period when the rights of property, freedom of contract, and liberty of commerce were still invested with much the same sanctity as they enjoy in times of peace. The practice of fixing maximum prices by Departmental Order which later became, under pressure of popular opinion, a universal and unquestioned procedure enforced in every local court, would in 1915 have been regarded as unconstitutional and legally impossible. The War Office wished to delete all reference to arbitration before a judge, to lay down that compensation should be based on ascertained cost of production and a reasonable profit defined by reference to a pre-war standard of profit (as under the Munitions of War Act and the Excess Profits Duty), and to leave a right of appeal to the Defence of the Realm Losses Commission as under other Regulations. But in deference to the views of the legal advisers this programme was abandoned. A compromise was reached whereby arbitration before a judge was retained, but instructions were given to the arbitrator as to the principles which he should follow in determining the price. The only amendment necessary therefore was to substitute a rather more precise definition of the words 'reasonable in all the circumstances of the case'. The new clause which was embodied in Regulation 7 on February 15, 1916, ran as follows :

In determining such price regard need not be had to the market price, but shall be had to the cost of production of the output so requisitioned and to the rate of profit usually earned in respect to the output of such factory or workshop before the war, and to whether such rate of profit was unreasonable or excessive, and to any other circumstances of the case.

The words which required the arbitrator to consider whether the pre-war rate of profit was unreasonable or excessive were a refinement subsequently inserted at the instance of the Ministry of Munitions. Whether a judge of the High Court appointed by the Lord Chief Justice of England would have regarded himself as bound by this amendment of the Regulation, or would have

dismissed it as *ultra vires*, need not here be considered, nor was it at any time of very great importance. So far as the writer is aware, no case ever went to arbitration before a Judge of the High Court under this Regulation. The main object was to be able to make use of this provision (which until it was overthrown was as much the law of the land as any other part of the Regulations) in future negotiations with Army contractors. The patriotism and sense of justice of the majority might be relied upon to accept the principle laid down, so long as it was applied impartially all round, and could be legally enforced, if necessary, against a recalcitrant minority.

This amendment, however, was not in itself sufficient. It was no use having the power to base prices on cost and normal profit, unless reliable information on these points could be obtained when the necessity arose from the books of manufacturers. This involved a new principle, the compulsory examination of books. Again the legal advisers considered it doubtful whether the Defence of the Realm Act was intended by Parliament to confer such powers on the Executive. No Regulation of the kind could therefore be validly made under the existing Act. It was argued that it would be necessary to pass a short Act through Parliament covering the point. This course, however, would involve delay and considerable risk of failure. The House of Commons had in fact refused to give this very power to the Revenue authorities, when they had asked for it in connexion with the administration of the Excess Profits Duty. The commercial advisers of the War Office regarded the proposal with equal or greater misgiving. Members of the Contracts Advisory Committee feared that the business community would never submit to an inquisition of this sort, and that such an unprecedented extension of the powers of the State would cause an outburst of indignant protest. The Director of Army Contracts insisted, however, that without this power administration of the new system would be impossible; that he would otherwise be dependent on manufacturers' own assertions of their costs and profits with no means of checking them; and that even if in practice the power was seldom used, it was essential to hold it in reserve in order to deal with less scrupulous firms. After two

hours' debate the Contracts Advisory Committee reluctantly gave their assent, and the amendment was made by Order in Council on the same day as the former amendment. Traces of the misgivings with which it was made are indicated by the phraseology adopted. No explicit reference was made to the compulsory production of books or the right to send officials into a factory to inspect them. The power was conferred in an almost casual manner by the insertion of the few unemphatic words 'and may require such particulars to be verified in such manner as they may direct'. The whole paragraph was then as follows (the words inserted are in italics) :

For the purpose of ascertaining the amount of the output of any such factory or workshop or any plant therein *and the cost of production of such output, and the rate of profit usual in such factory or workshop before the outbreak of war* the Admiralty or Army Council or the Minister of Munitions may require the occupier of any such factory or workshop or any officer or servant of the occupier, or where the occupier is a company any director of the company, to furnish to the Admiralty or the Army Council or the Minister of Munitions such particulars as to the output, *cost and rate of profit* as they may direct, *and may require any such particulars to be verified in such manner as they may direct*, and if any such person fails to comply with any such requirements he shall be guilty of an offence against these regulations.

It was by virtue of this clause, first promulgated in February 1916, that it became possible for the War Office and other Departments to appoint skilled accountants to make minute investigations of costs of production, and to bring to light information which was often a revelation and source of surprise to the manufacturer himself. It was the turning-point in the development of the 'costings system'. From this time onwards the new principle was firmly installed and remained unchallenged throughout the war. So far from protesting manufacturers submitted almost as a matter of course to the examination of their books. Parliamentary sanction proved unnecessary and was never obtained; but the results achieved were so satisfactory to the tax-payer that the Public Accounts Committee of the House of Commons came to regard this new power as a valuable and necessary safeguard of the purchasing Departments. In a recent report¹ the

¹ *Committee on Public Accounts*, 4 Dec. 1919, pp. xvi, xvii.

Public Accounts Committee criticized a particular transaction of the Ministry of Munitions on the ground that the manufacturer's books had not been examined to ascertain the cost of production. In the light of such criticism it is difficult to realize that the power to examine books was at one time thought to be *ultra vires*, that it was obtained almost surreptitiously and without explicit avowal, and that the War Office was unwilling to ask the House of Commons to sanction it, for fear that sanction would be refused.

The origin of two of the main pillars of control has been given ; Regulation 2 B governing the requisitioning of stocks and raw produce, and Regulation 7 laying down the principle of paying manufacturers on the basis of cost and fair profit. Reference must now be made to two other Regulations, 30 A and 2 E, which completed the legal frame-work and in time came to overshadow the other two in importance. These Regulations rendered possible State control of trade, the licensing of dealers and the enforcement of maximum prices. There were no provisions either in the original Act or in the early Regulations enabling the Government to prohibit or control commercial operations. The first venture in State trading—the prohibition of private imports of sugar and the subsequent monopoly exercised by the Sugar Commission—was based not on the Defence of the Realm Act but on a special Royal Proclamation. But among the special powers conferred on the ‘competent naval or military authority’ (which meant not the Admiralty or War Office but individual naval or military officers above a certain rank, conducting operations or commanding a district) was the right to prohibit the carrying and the buying and selling of rifles, ammunition, and other arms ; such a power was essential in case of a local emergency, such as the landing of a hostile army, but was clearly not intended to apply to the whole trade of the country.

This Regulation 30 formed a useful peg on which to hang the first attempts to supply a legal basis for controlling trade. A new Regulation was drawn up, called Regulation 30 A, which conferred similar but more general powers on the Admiralty, Army Council, and the Minister of Munitions. The authors of the Regulation were a small Committee consisting of members of the General Staff, the Ministry of Munitions, and the Contracts Department.

Their object was to put a stop to the mischievous speculation that was taking place in war material, such as rifles, which the Allies were requiring in very large quantities. The official explanation at the time was that enemy aliens and cosmopolitan speculators were buying up supplies of arms and ammunition and explosives, in order to embarrass the Allied Governments and place obstacles in the way of supplying the armed forces. It was announced that only bona-fide British merchants would be licensed to deal in certain classes of war material, and at the time there was no intention of interfering with legitimate private trade, still less of constituting any Government monopoly.

The new Regulation enabled the Admiralty, Army Council, or Minister of Munitions to schedule a list of articles and classes of war material, dealings in which were prohibited except under licence. The original list contained articles purchased for the most part by the Ministry of Munitions. The effect was instantaneous. A study of intercepted cables (copies of which were daily supplied by the Chief Censor, and formed a valuable weapon in the armoury of control throughout the war) showed that the speculators were badly hit. Offers of millions of rifles were no longer received from impecunious toy dealers. The Regulation was later amended in such a way that prohibition of dealings was extended to transactions outside the United Kingdom by firms domiciled here. This power of prohibiting British firms buying and selling in other parts of the world eventually proved of great importance in facilitating the establishment of State purchase in foreign markets on behalf of the Allies as a whole. At first the use made of the Regulation was confined to war material in the narrow sense, viz. arms, ammunition, and explosives. The Ministry of Munitions then extended it to certain rare metals, such as tungsten and molybdenum, which, though they might not be regarded as specifically war material in normal times, could be treated as such during the war owing to their being required almost exclusively as a raw material for high-speed steel.

In September 1915 the Ministry began to impose conditions on the recipients of licences, among which was the stipulation that certain fixed prices should not be exceeded. The next development came in March 1916, when the War Office made an Order

under Regulation 30 A prohibiting all private dealings in Russian flax, a raw material required largely but not exclusively for military purposes. In this case no licences were granted; the War Office itself assumed the entire monopoly of the purchase and import of flax from Russia, transforming four of the principal flax importers into Government agents.

Regulation 30 A was by this time becoming unsuitable for the purpose in view. To use it as a means for establishing a Government monopoly or the enforcement of maximum prices was only possible by straining the original intention. The legal advisers were particularly doubtful whether the power of prohibition and licensing conferred the right to prescribe regulations such as maximum prices as a condition of the licence. A local authority has power to prohibit cinema entertainments except under licence; but it would be quite illegal for it to lay down as a condition of the licence that only certain films may be shown; that half the proceeds should be paid to the local authority; and that the proprietor should not exceed a prescribed scale of maximum charges. As a result of this opinion the War Office took the initiative in getting a new Regulation issued by Order in Council which would give wider and more explicit powers than Regulation 30 A.

This new Regulation, which was called Regulation 2 E, enabled the Admiralty, Army Council, and the Minister of Munitions 'to regulate, restrict, or prohibit the manufacture, use, purchase, sale, repair, delivery of or payment for, or any other dealing in any war material, food, forage, or stores of any description, or of any article required for or in connexion with the production thereof', and laid it down that any person breaking any condition that might be imposed in any licence or order made under the Regulation would be guilty of an offence.

This Regulation was the most comprehensive and drastic of all the Regulations concerned with State control. Though it did not expressly refer to the fixing of maximum prices, it was intended to be used for that purpose, and legal opinion was satisfied that it might be so used. It gave a legal basis for rationing manufacturers and dealers, for enforcing the 'priority' system of distribution, for cancelling or varying private contracts, and for

regulating the uses to which a man might put materials already in his possession. Provided the whole Regulation was not *ultra vires*, there was virtually no measure of State interference with private property and freedom of trade, which could not be legally justified under its provisions. The much more numerous and detailed powers subsequently conferred on the Food Controller might all be regarded as implicit in Regulation 2 E.

The British Common Law is often praised for its elasticity and adaptability to altered circumstances. The same qualities are to be found in a marked degree in many of the Regulations made under D.O.R.A. But the fact is, that in the great majority of cases, what was lawful and what was not lawful did not so much matter; what mattered was the extent to which any measure commanded general support and was applied impartially all round. Measures of State interference, which went beyond what the best opinion in any particular trade regarded as necessary and possible, were practically certain to fail, however valid their legal sanction. Similarly, many devices which were legally unsound or doubtful, were enforced without difficulty and accepted without demur, provided that they had behind them the weight of popular opinion and the patriotic support of the most influential men in the trade. The truth of these principles became specially evident in connexion with the flood of minute regulations issued by the Food Controller, all of which, according to one school of legal opinion, were technically *ultra vires*, since they had only the remotest connexion, if any, with the defence of the United Kingdom against an armed invader, which was alleged to be the sole contingency contemplated by the legislature in passing the original Act.

PART II

TEXTILES AND LEATHER

CHAPTER VI

RUSSIAN FLAX AND CONTROL OF THE LINEN INDUSTRY

Extension of costings system to linen industry — Comparison with jute industry — Difficulties in supply of raw material — Closing of the Baltic — Decision of War Office to monopolize purchase of Russian flax — Appointment of buying agencies in Russia — Flax offices opened in London, Dundee, and Belfast — Co-operation of spinners and manufacturers — Improvements in supply of raw material — Results of trading operations — Profits and risks — Usual accounting methods not applicable — Government Departments and business firms — Controller and Auditor-General and audit of flax accounts in Russia.

Work of Flax Control Board — Aeroplane linen — Increase of flax production in United Kingdom — Purchase of seed — Rationing and control of manufacture — Local Committees — Centralization and decentralization of control.

SOON after the system of requisitioning and costing had been introduced in the jute industry, attention was directed to similar problems that had arisen in the heavy linen industry. Both industries were mainly concentrated in Dundee and district, and both were essential for military purposes. Indeed a far greater proportion of the heavy linen output was taken by the War Office than of jute products. For a few months the two industries were treated very differently. While jute goods were being supplied at much under market values, flax products commanded practically any price manufacturers chose to ask. Jute goods were obtained by requisitioning; linen goods by the old method of competitive tendering, the greater part being supplied not to the War Office direct, but to War Office contractors and sub-contractors. So glaring a contrast could not long continue. Jute spinners and weavers began to complain that they had been singled out for special treatment, and asked why flax spinners and weavers were allowed to get any price they could in an unrestricted market. The general view in Dundee was that the costings principle should be

applied all round or not at all. To this the War Office readily assented, and explained that it was only a question of time before the system would be applied not only to flax but to other textile industries.

There was undoubtedly every reason for dealing on the same lines with the linen manufacturer. The War Office was not obtaining all the heavy linen goods it required, and was being compelled to take cotton substitutes in many cases where cotton was inferior. In the absence of any organized control of the trade large orders were still being booked for private customers, and although export was restricted, licences could still be obtained by manufacturers or merchants who could show that the goods were already made, and that they were unsuitable for military purposes. This interfered with War Office supplies, and made it difficult for army contractors to obtain the canvas they required for making the finished articles for which they had tendered and received orders. Meanwhile, the Allied Governments were being refused permission to buy linen goods and were being compelled to buy instead in the United States. From the point of view of economy the need for organized control was no less apparent. Prices were exorbitantly high. As in the jute trade, it was the spinner who was making the largest profits, partly owing to the cutting off of yarn imports from Belgium.

Inquiries soon showed, however, that the new system would be much more difficult to introduce in the flax trade. The number of articles into which linen goods and canvas entered was much greater and more varied than the number of articles made of jute. Although it had been the practice for some time to buy tent canvas and issue it to contractors to be made up into tents, this was not the general practice in purchasing goods made of flax. There were over thirty items of army equipment, for which the contractor had to obtain his own supplies of canvas. It was realised that there would be great economy if the materials for all these made-up goods could be bought direct and issued to contractors; but the change would involve much extra work in book-keeping, storage, and inspection, which under the existing pressure at Woolwich would scarcely be possible without opening a new local depot similar to the Jute Goods Depot at Dundee.

Moreover, the heavy canvases required for all these various purposes differed widely in quality ; there would therefore be greater difficulty in fixing standard prices which would be fair to the different manufacturers and place a relatively equal burden on all.

But the most serious obstacles encountered in the course of inquiry were the uncertainties with regard to supplies of raw flax, the big risks which spinners had to run in order to obtain any, and the impossibility of fixing any basis of prices for the raw material from which to calculate the cost of yarn. Not only were the supplies of flax insecure but the quality of what arrived was not so good as in normal times. Whereas before the war about 30 per cent. was lost in the hackling process, in 1915 the loss was said to be nearer 60 per cent. ; on the other hand the by-product, which is sold as tow, commanded a better price than usual. Variations in the yield, fluctuations in the price, and uncertainties in delivery made it almost impossible to say what the raw material was worth ; and the necessity of blending a great variety of qualities to produce the desired strength rendered it still more difficult to give even an approximate estimate of the cost of production of the many kinds of yarn which the spinner produced. It became evident that though it might just be possible with the aid of experts to apply the costings system if the price of the raw material were standardized on a stable basis, it would be quite impossible if the raw material was left uncontrolled.

A leading spinner with whom the position was discussed stated that the existing high prices were largely due to the necessity of covering against the abnormal risks of buying flax in Russia, and that if the Government would undertake to purchase on behalf of the whole industry and guarantee them their supplies, it would relieve manufacturers of their chief anxiety and enable them to quote more reasonable prices. Naturally the War Office was reluctant to assume such responsibility, if it could possibly be avoided. But events soon made Government intervention inevitable.

The flax required for making heavy linen canvas (as distinct from the finer flax grown in Ireland which is consumed by the fine linen industry of Belfast) was normally imported from Russia via the Baltic. The Baltic ports being now closed by enemy action, the

only means of exporting flax from Russia, apart from a slow and difficult route through Sweden which was rarely possible or convenient, was to transport it several hundred miles by a single line of railway to Archangel and to ship it thence during the five or six months of the year when the port was not closed by ice. These natural difficulties were aggravated by the activities of speculators in Russia. Since there was a great shortage of trucks on the Archangel railway, a favourite move of the speculators was to obtain an option on a number of wagons, thus preventing the holders of flax from obtaining them, and then offer to release them for a consideration. The confusion thus caused made the business of buying flax so risky that the merchants began to ask the manufacturers to assume the risk themselves and pay them a fixed commission as agents. The manufacturers had then to employ other agents to try and obtain transport facilities to Archangel and shipping space to Dundee.

Under such conditions it is not surprising that the amount of flax imported during 1915 was about 30 per cent. less than the average pre-war import. Towards the end of 1915 the effect on prices in the United Kingdom became pronounced. Flax which sold for about £60 a ton before the war was now quoted at £115, a rise of nearly 100 per cent. in twelve months. By February 1916 the existing stocks in merchants' hands were being held for a further rise, manufacturers' supplies were running dangerously low, and the transport situation in Russia was getting worse. Meanwhile increased supplies of flax were necessary, if the needs of the Allied armies were to be adequately met. The situation had become so serious that in February 1916 the War Office decided to intervene.

The plan was as follows: first, by centralization of buying in the interior of Russia, to check speculation and buy as cheaply as possible; secondly, to make an arrangement with the Russian Government for a definite allocation of wagons and thus obtain priority for flax required for military purposes; and thirdly, to arrange a shipping programme with the Admiralty for the shipment of flax from Archangel to Dundee in requisitioned tonnage.

On March 28, 1916, an Order was issued by the Army Council

requisitioning unsold stocks of Russian flax in dealers' hands and prohibiting all private dealings in Russian flax both in the United Kingdom and by British firms in Russia. Four large importing houses, which had been established in Russia for many years and had agencies and branches in the interior for buying direct from the peasants, were appointed sole Government agents; and the War Office announced that all Russian flax would henceforth be purchased through these agents on Government account. A special officer was sent to Archangel to look after flax shipments and to facilitate its transport from the interior. He was also instructed to give special attention to the movement of stocks of flax already bought on private account. As regards finance, which had been an increasing difficulty to private traders owing to the collapse of the foreign exchange market, it was arranged that the Russian Government should place roubles at the disposal of the British Ambassador for the use of the War Office agent in Russia and in exchange should receive an equivalent amount of sterling in London for the purchase of commodities which they were not permitted to buy out of the sums advanced to them on loan by the British Government. This proved an attractive proposal to the Russian Government, which was now finding it almost impossible to import anything except war material supplied on credit by the British Government, and helped to remove the objections, which might have become serious, to the new departure whereby the British War Office monopolized the export, and practically controlled the price, of one of Russia's most important raw materials.

The administrative machinery necessary to carry out the new policy presented fewer difficulties than were at first anticipated. In February 1916 a new section of the Army Contracts Department had been created called the Raw Materials Section, whose functions were to act as a bureau of economic intelligence and research on all matters relating to the supply of raw materials and to prepare schemes for controlling and safeguarding supplies in cases of necessity. This section now became responsible for the administration of flax purchase. The supervision of the four agent firms and the technical direction of all the commercial operations involved was undertaken in an honorary capacity by

Mr. W. H. Gardner, manager of the flax department of Messrs. W. F. Malcolm & Co. For three years he carried on the intricate processes of buying and selling raw flax for the linen manufacturers of the country with the assistance of a small staff installed in a few rooms in the Tothill Street Branch of the War Office. The ordinary routine of a City office was incorporated practically unchanged into a sub-department of the War Office, and its current business was conducted on commercial lines quite independently of the ordinary machinery of official routine.

In addition to the office in London, a War Department Flax Office was opened in Dundee, with a branch in Belfast, for the purpose of supervising the distribution of raw material, the allocation of orders, the investigation of costs, and the application of the requisitioning and costings system to the linen industry on the same lines as in the jute industry. These offices were manned by experts in the trade and were run on business lines with the minimum of interference from head-quarters.

It was now possible to fix the selling prices of the raw materials supplied; manufacturers were able to select the particular grades or 'marks' which they required; and linen yarn and cloth were obtained for War Office requirements at prices calculated to cover the cost of conversion and a reasonable margin of profit. An Advisory Committee of flax spinners and manufacturers was appointed, and every step taken or proposed by the War Office was fully explained and discussed at the meetings of the Committee. Once the general policy of State intervention had been accepted, the detailed applications of the policy and the many practical difficulties which the War Office had foreseen proved less formidable than was feared. With goodwill on both sides technical problems were solved with comparative ease. Without goodwill the same problems might well have proved insoluble. The drawing up of standard specifications for yarn, the determination of costs, the fair allocation of the burden of supplying War Office requirements, the distribution of the different grades of raw material to different firms in such a way as to avoid favouritism or discontent—all these difficulties were smoothed away by the fact that the manufacturers themselves were co-operating to make the scheme a success. It is noteworthy that one of the first fruits of State

control was the formation of a Flax Spinners and Manufacturers Association—a step which had never hitherto been successfully accomplished, owing to the strong individualism of the flax trade.

In Russia the new system worked a surprising transformation in the conditions of flax export. It now became possible to organize transport by rail and waterway from the interior to Archangel, to draw up a shipping programme which would lift all the flax purchased, and by bringing pressure to bear on the Russian Government and cutting out the speculators to ensure that the programme was fulfilled. The total quantity of Russian flax imported via Archangel during 1916 exceeded by about 60 per cent. the amount imported during the previous year and reached the same figure as imports in a normal year via the Baltic. At the same time the buying agencies found their task simplified. Overlapping and competition were avoided by dividing up the flax-growing districts among the four firms and allotting to each its sphere of operations. Concentration and co-ordination of buying checked further inflation during the 1915-16 season. In later years the occupation of flax-growing districts by the Germans and the disturbance caused by the Revolution caused prices to advance, but the increase would certainly have been greater but for the action of the British Government. In 1914 the price of a standard grade of Russian flax was £65 per ton. When the War Office intervened in 1916, the price had risen to £92. In 1917 purchases were made between £133 and £152, and in 1918 the highest price paid by the War Office was £177. In November 1919 after de-control the price ruling in the open market had reached £250 and during 1920 prices as high as £360 per ton were freely paid, this being more than twice the highest price paid by the War Office during the war.¹

Trading accounts and balance sheets for raw flax for the years 1916 and 1919 are given in Appendix 3. Relatively small purchases of Dutch, Egyptian, and Australian flax were made from time to time, and the account also includes purchases and sales of flax seed, which was obtained in many parts of the world, principally Russia, Holland, Canada, and Japan, for increasing

¹ *Report on Raw Materials*, Cmd. 788, p. 18.

the acreage under flax in Ireland and reviving flax production in England. The total purchases of flax and flax seed from March 1915 up to the date of the Armistice, when purchases on Government account came to an end, amounted to 163,000 tons of an approximate value of £20,000,000. A margin of about 15 per cent. was included in the selling price to provide a reserve fund against possible losses. By a combination of good fortune and good management losses owing to the German invasion of north-west Russia and the disturbances caused by the Revolution were almost negligible. The most serious losses were caused by enemy action at sea. A special marine and war-risks account was opened, into which was credited £15 per ton on flax and 6 per cent. on the cost of flax seed. At March 31, 1919, this account showed a credit balance of £70,000, after losses amounting in all to £1,142,230 had been written off. Over a million pounds worth of flax and flax seed were lost on steamers sunk by enemy action in the twelve months from March 1917 to March 1918, the period of the intensive submarine campaign. These vessels were nearly all sunk in the North Sea and off the coast of Norway.

The balance sheet drawn up on March 31, 1919, showed accumulated profits of £2,460,000, stocks in hand valued at £3,283,000, and a net liability of £923,200 to be set against the value of stocks. Total sales and stocks on March 31, 1919, amounted to £18,640,500, and accumulated and prospective profits, after repaying with interest the whole of the capital advanced from Army funds, amounted to £4,820,000. This was equivalent to a dividend of over 60 per cent. per annum for three years on the capital employed. That such a result was possible, and indeed almost unavoidable, without any attempt being made to realize big profits, supplies an interesting side-light on war-time inflation and the problem of profiteering. The result was due to ordinary prudent business management. The risks were great and adequate provision had to be made against losses. As the official commentary points out it was only by good fortune and good management that an eventual loss was successfully avoided.¹ Moreover, in spite of the high rate of profit earned, the Government selling prices for flax were at all times considerably lower in proportion

¹ *Op. cit.*, p. 19.

than those of any possible competing product, such as cotton or Italian hemp.

One further point may be mentioned, which has an important bearing upon the problem of Treasury control of Government trading transactions. The normal business of purchasing departments is to estimate what amount of money will be required during the coming year, to obtain a vote of credit from the House of Commons for this amount, and to secure that in its expenditure every penny is accounted for and used to the best advantage. The Controller and Auditor-General is charged by Parliament with the duty of investigating the manner in which the money is spent. No detail is too insignificant for him to pass over and the least case of waste or loss is liable to be reported upon. All this is no doubt an essential safeguard for the public exchequer in normal times, and does undoubtedly secure a high standard of economy and efficiency in store accounting, which probably surpasses that of many business firms. The business firm has to satisfy its auditor that its balance sheet and profit and loss account are correctly drawn up. It is not the business of the auditor of a company to draw attention to losses or bad debts, to clerical mistakes, still less to errors of judgement in buying or selling. It is probable, therefore, that on the whole there is greater attention to detail and proportionately fewer losses in Government administration than in a large private business. Human nature being what it is, however, the Controller and Auditor-General is always able to point to mistakes in one direction or another, which are then reported upon unfavourably by the Public Accounts Committee and placarded in the newspapers with headlines implying gross extravagance and colossal incompetence. The impression created on the public mind is unfortunate, and to a large extent unfair. It is not the business of the Controller and Auditor-General, nor of the Public Accounts Committee, to draw attention to any striking successes or economies. It is not even their function to apportion praise and blame impartially where they are earned. It is their principal, if not only, function to draw attention to cases where they have discovered a misuse or waste of public funds. The result is that regularly, year after year, when the Controller and Auditor-General and the Public Accounts Committee make

their reports, the public are treated to an exposure of dirty linen, which, being unaccompanied by any fair picture of the whole of the activities of the purchasing department, engenders a feeling that Government administration is practically synonymous with waste and incompetence. Those who have been intimately associated with the business side of Government administration recognize that this is not a fair conclusion. Private businesses are judged by the results they show in their trading accounts as a whole. A large business is often so little concerned with minor losses that it will write them off without a qualm as not worth further consideration. If the same sort of microscopic searchlight was applied to railway companies, coal-mining or textile manufacturing as is applied by the Controller and Auditor-General to Government departments, it is by no means a foregone conclusion that they would show fewer losses and blunders.

There is, however, another side to the system as it works out in the War Office and other purchasing departments. The result of having to answer for everything that happens, no matter how unimportant it may appear at the time, leads to excessive attention to details and a too elaborate organization of records and filing. If there are a few pennies wrong in the account or a few stores cannot be traced, an immense amount of time and trouble is taken to investigate the matter, and if possible to set it right, which in some cases may cost more than the original trouble. This is where private business scores. It writes off a loss or a bad debt without hesitation, if it would cost an undue sum of money to pursue the matter further.

This difference between Government accounting and the methods in use in a private business was strikingly illustrated when the War Office assumed the responsibility for the purchase of Russian flax in the interior of Russia. Many were the qualms of the financial and accounting authorities at the War Office when the conditions of the flax trade in Russia were explained to them. It was realized that none of the ordinary checks in use in Government departments were applicable. It was not merely that you had to trust to the integrity of the four principal firms selected as agents, but you had to rely on the integrity and personal statements of all the agents and native buyers whom these firms found

it necessary to employ in dealing direct with the Russian peasant. The practice in the trade was to hand over a certain sum in roubles to the buyer, who then went to a market and haggled with the peasants for the best price he could obtain. Whether the amount of flax which he brought back, or the amount of money which he had spent, always corresponded with the facts, you had no means of checking. The illiterate peasant could not even give a receipt for the money received. The probability is that your buyer robbed you of a few kopecks per ton. That was of no great concern. If he tried to rob you of roubles, you would probably find him out sooner or later by comparing his price with others and then you would cease to employ him. Then there were other contingencies. Goods might get lost, stolen, or burnt, and there was no possibility of insuring them or of checking the exact amount of your loss. The trade was a rough-and-ready one, and a good deal of latitude would have to be allowed in the rules and regulations applicable to Government finance and store accounting, if the War Office was going into the business. There was, of course, no risk to the Public Exchequer. The full cost of obtaining the flax would be passed on to the manufacturers, including an estimated amount to cover insurance against every kind of loss, and in practice the saving secured by eliminating competition and controlling prices in the Russian market was far greater than any possible loss that might be incurred in the ordinary course of business. One conclusion, therefore, may be drawn from this first experiment in Government purchase of raw material, and that is that the system of Treasury control and investigation by the Controller and Auditor-General and the Public Accounts Committee is not always compatible with ordinary trading transactions. Buying and selling, specially where you are buying agricultural produce from an illiterate producer, cannot be conducted on the principles of accountancy designed for the control of normal public expenditure. It is perhaps fortunate for the reputation of the Raw Materials Section that the Controller and Auditor-General never pursued his inquiries into the heart of Russia and was satisfied with the certificate of a British firm of chartered accountants, established in Petrograd, that the accounts of the four agent firms were properly kept.

The Flax Control Board

Attention has hitherto been confined to the heavy linen industry, the output of which was controlled by the War Office. Brief reference should here be made to the arrangements made for controlling the fine linen industry of Belfast and co-ordinating the supply of seed and raw material for both branches of the industry.

On October 23, 1917, a Flax Control Board was appointed by the War Office, in agreement with the Department of Aircraft Production of the Ministry of Munitions, to supervise and co-ordinate the arrangements for securing supplies of flax seed, flax and flax goods for war purposes. The most important single item was the manufacture of linen fabric for aeroplane wings. Tens of millions of yards of fine linen cloth were required for this purpose, and the bulk of the fine flax needed had to be purchased in the North of Ireland. Owing to the cutting off of supplies from Belgium, France, and Holland, anxiety was at one time felt as to the adequacy of the available resources of raw material; but owing to the activities of the Flax Control Board and the special measures taken to stimulate home production and to ration supplies, it was never necessary during the war to modify the aeroplane programme owing to a shortage of linen fabric.

On December 8, 1917, the Flax Control Board was recognized as an allocation sub-committee of the War Priorities Committee of the Cabinet with power to allocate supplies of linen goods and raw materials, in accordance with general principles of priority laid down by the main Committee, between the several departments and public services. First-class priority was accorded to aeroplane requirements.

In 1916 the acreage under flax in the North of Ireland was 91,454 acres. In 1917 owing to the rise in prices and the purchase of seed from Russia, Holland, and Japan by the War Office, the acreage increased to 107,705 acres. In 1918 the Flax Control Board succeeded in raising the acreage to 141,538 acres. The whole crop was purchased at guaranteed prices by the Ministry of Munitions. A company called the Flax Society Limited was formed in Ireland for cultivating flax in other districts. Three-quarters of the company's resources were provided by the

War Office and one-quarter by linen manufacturers. Ten thousand additional acres were brought into cultivation by the Flax Society Limited.

In England and Scotland the acreage was increased by the efforts of the Flax Production Branch of the Board of Agriculture from 800 acres in 1917 to 13,500 acres in 1918.

In order to provide sufficient seed for an increased production of flax in the United Kingdom, efforts had to be made to find new sources of supply. In the North of Ireland the seed is usually wasted. The whole crop is harvested before the seeds have ripened, so as to obtain the largest amount of fibre. In 1917 an Order was made by the Army Council under the Defence of the Realm Act requiring the farmers to save a certain proportion of their seed. This Order was administered by the Department of Agriculture for Ireland with satisfactory results.

A more ambitious project was a Government scheme for the cultivation of 30,000 acres in Canada for the production of flax seed. Four hundred tons of Japanese seed were bought by the War Office and distributed through an agent firm in Winnipeg to Canadian farmers. A considerable proportion of the resulting seed crop was damaged by frost; but the balance, which was reported to be satisfactory, was shipped to Ireland towards the end of 1918. Purchases of flax seed were also made in Eastern Canada for shipment to Ireland.

To assist the Flax Control Board in the distribution of raw material Irish and Scottish sub-committees were appointed at Dundee and Belfast, consisting of representatives of the industry and of the supply departments. These committees carried out the rationing policy of the Board by a system of licences, no person being allowed to put flax into any process of manufacture without a licence. During 1918 the committees were the instrument for imposing very severe restrictions on the production of linen goods for civilian consumption and for the export trade, and serious hardship was inflicted on the workers in some sections of the trade. In dealing with questions affecting labour, the committees were assisted by Labour Advisory Committees.

When the war ended, the evolution of control had resulted in an efficient and clear-cut organization of the industry for war

purposes. On the side of demand, the various requirements of the supply departments were brought together and reviewed in bulk by the Flax Control Board. The maximum supply of seed and raw material was obtained by centralized purchase on Government account. Home production of flax was stimulated by guaranteed prices, increased seed supply, and financial assistance for the cultivation of special areas. Imported and home-produced flax was distributed to manufacturers at fixed selling prices by a system of rationing based on priority for the most important military purposes. And the control of production, the allocation of orders, and the licensing of traders and manufacturers were conducted by local committees on which the various interests concerned, including labour, were represented. The organization finally reached combined the advantages of centralization and de-centralization and owed its success to close co-operation between the various branches of the industry, between four or five different Government departments, each concerned with one part of the problem, and lastly between the industry as a whole and the Government. At the top of the whole edifice was a representative Board of Control, under an independent chairman. Under such a system control lost much of its bureaucratic character and approached nearer to the ideal of responsible self-government in industry. That such an evolution was possible at all in such a highly competitive industry as linen manufacturing is a measure both of the emergency which gave it birth and the patriotic spirit in which the emergency was faced.

CHAPTER VII

PURCHASE OF RAW JUTE AND MANILA HEMP

Decision to buy raw jute for military purposes — First agency agreement — Objections in Calcutta — Appointment of Jute Commissioner and allocation of orders in India — Third and final system adopted — Purchases in the market in competition with manufacturers — Prohibition of import of jute, February 1917 — Steps to control prices and ration supplies — Resumption of private imports and methods adopted — Licensing private purchases — Effect on prices in India and United Kingdom — Purchases for Allied Governments — Results of Government trading in jute.

Position with regard to Manila hemp, April 1917 — Freights, prices, and profits — Government purchase — Appointment of buying and distributing agents — Selling prices — Course of market prices in the Philippines — Results of trading operations.

WHEN the Russian flax scheme had been successfully launched in the early months of 1916, the Raw Materials Section began to turn its attention to other raw materials required by the textile and leather industries. The present chapter records the development of State purchase of raw jute and Manila hemp.

Just as the early experience gained in the jute industry was made use of in applying the 'costings system' to the flax industry, so the new experiment of State purchase of Russian flax suggested the need for adopting the same course in the case of raw jute. This development was less urgent during the first nine months of control in the jute industry, because supplies of the raw material were plentiful and prices were consequently steady. But towards the middle of 1916 these conditions began to change owing to the effect of the submarine campaign on the tonnage situation. It became more difficult to obtain shipping space. Rates of freight were increasing rapidly, and as a consequence the market price of raw jute in London and Dundee was rising. Whereas the War Office was paying only 75s. per ton at Blue Book rates on jute goods shipped from Calcutta, private importers of raw jute were paying rates of freight up to 300s. per ton. Since the 'requisition price' of jute goods had to be based on the market price of the raw material, this meant that goods purchased in Dundee cost considerably more than goods purchased in Calcutta. Further,

the constant rise in raw jute gave an unearned increment to the firms who had bought some time before and had accumulated large stocks. The whole basis of the costings system was thus being undermined by the rise in freights. To meet this difficulty it was decided in August 1916 to purchase raw jute in India on Government account and get it shipped at Blue Book rates of freight.

The annual requirements of raw jute for the manufacture of jute goods for military purposes in the United Kingdom was estimated at 72,000 tons. The difference between the probable cost of these 72,000 tons delivered to Dundee on Government account and the market price at the time of arrival was estimated at the outset of the scheme at £800,000 per annum. But owing to the rapid rise in market prices and skilful buying by the War Office experts, the saving on the first 34,560 tons bought had already amounted to £510,000 in June 1917.¹

The exact procedure to be followed in buying jute on Government account proved a more difficult question to determine than was at first expected. Unlike Russian flax, Colonial wool, and Manila hemp, the War Office did not propose to buy the whole of the raw material required by the industry, but only the amount required for military purposes. This left the civilian trade free, and relieved the War Office of a responsibility which it had no desire to assume. But as in other cases where half-measures were taken in preference to complete control, the situation had its inconvenient reactions. In the case of raw jute three different methods of buying had to be adopted one after the other, before a scheme satisfactory to all parties was evolved.

The original plan of the War Office was to appoint a single firm of large jute shippers and balers to act as sole Government agents for the purchase of jute in India. An agreement was drawn up in August 1916 with Messrs. Ralli Bros., whereby the War Office was to receive a fixed proportion of their local and up-country purchases of loose jute at the actual prices paid by them. To this was to be added a fixed charge of 12s. 6d. per ton to cover all establishment charges, including the work of selecting, baling, and warehousing from the time of purchase until shipment,

¹ Memorandum on War Office Contracts, Cd. 8447.

and also the services of the firm's branch in Dundee for purposes of distribution. The firm also undertook to give up all private business with Dundee, so long as they were acting as Government agents. They supplied full particulars of their turnover, establishment expenses and net profit over a period of years. The flat rate per ton agreed upon actually represented about one-half of their average annual establishment charges. Neither the firm nor the Department expected that there would be any net profit to the partners out of the transaction. In the course of negotiations it was explained to the firm that it was important to safeguard both themselves and the War Office from accusations of unfair monopoly, and for this reason it was confidently expected that they would undertake to work for the Government on the lowest possible terms. This warning was justified, as the sequel proved.

As soon as the arrangement was concluded, an announcement was made in London and Dundee that the Government would in future supply Dundee spinners with the raw material they required for War Office orders through the agency of this firm. No objections were put forward either by the Dundee manufacturers or by the London Jute Association, a body representing the jute merchants and shippers. But when the announcement reached Calcutta, strong protests were made by the Baled Jute Shippers Association both to the Government of India and to the London Jute Association. Resolutions were passed stating that the appointment of this firm to act as Government agents would act detrimentally to many other British firms established in Calcutta, and urging that orders should be shared amongst all shippers of jute to Dundee on a basis similar to that on which orders for bags were being placed with Calcutta Jute Mills. The members of the Association stated that they were prepared to carry out the reported agreement on exactly the same terms as the firm chosen. These terms were not yet known in Calcutta, though they were known to the London houses.

The reply sent by the Committee of the London Jute Association to these protests was that they considered the method chosen was probably the best that could have been decided upon from the point of view of the Government. The leading jute merchants in the City were inclined to attach little importance to the out-

burst in Calcutta, which they attributed partly to jealousy and partly to a suspicion that the firm in question was obtaining a profitable contract. In their opinion it would be impossible for any other firm to undertake to supply jute on such favourable terms as the agents selected, since they were the only large firm with up-country establishments for buying direct from the growers.

The Government of India, however, took a different view. The affair began to assume political importance and the Viceroy had to insist that the original contract should be cancelled and that a new agreement should be made on exactly the same terms with any members of the Baled Jute Shippers Association who desired to participate. By this time the original terms had become known, but it was too late for the Calcutta firms to back out. Though the terms finally agreed upon were not exactly the same—the clause providing that the agent firm should do no private business with Dundee had to be dropped and other concessions had to be made which rendered the contract rather less onerous—it was by no means a profitable or popular arrangement to the Calcutta shippers. It involved the appointment of a Jute Commissioner by the Government of India, whose business it was to apportion the burden as fairly as possible among the participating firms, to obtain returns, to certify costs, and in general to exercise a rather troublesome supervision over their operations.

After a few months this scheme was dropped by mutual consent and the third and final system was inaugurated. Mr. George Malcolm, C.B.E., the manager of the jute department of the firm originally selected as agents, became a War Office official and henceforth bought in the ordinary way either in London or Calcutta from any firm who chose to make offers. Under this system the Department was free to choose its own time for buying, and to take advantage of the competition of individual shippers and the fluctuations of the market.

To operate successfully in this manner is generally considered to be beyond the capacity of a Government Department. It is true that the ordinary methods of official routine, necessary and valuable as they are for administrative and quasi-legal work, are quite unsuitable for buying and selling in a constantly changing

market. But war experience showed that there was no inherent impossibility in grafting upon a Government Department the methods of Mincing Lane, if and when those methods were clearly desirable. The sole conditions of success were, first, that the right man should be chosen for the job; secondly, that he should be implicitly trusted and left to run his job in his own way; and thirdly, that he should be judged by results, as a business man is judged, and not by the completeness of his documentary records or by his skill in answering parliamentary questions.

Lastly, one might add that he must be reasonable enough to realize that on broad questions of policy, on legal and parliamentary questions, and on questions of co-ordination he must be guided to some extent by civil servants trained in methods of public administration. These conditions were fortunately fulfilled in the Raw Jute Department of the War Office.

In the official Report on Raw Materials,¹ which gives an account of the operations of the Raw Materials Department of the War Office, it is stated that comparisons made from time to time between the f.o.b. prices paid by the Department and similar prices paid by manufacturers purchasing on their own account showed that Government requirements were obtained at least £4 per ton, that is, about $12\frac{1}{2}$ per cent. cheaper than the prices paid by manufacturers operating at the same time. In addition the Jute Department was shown to have made its purchases at advantageous periods of market fluctuations. The Report continues:

The basis price at which the raw material was supplied to spinners for conversion into Government goods was kept at the lowest possible point and never exceeded £34 10s. per ton, c.i.f. basis, for first marks despite the higher rates of freight and war risks insurance provision. This figure compares with £32 10s. per ton c.i.f. ruling on 1st August 1914 with pre-war rates of freight and no war risks insurance, and should be considered in conjunction with the fact that after all Government control of raw jute ceased in April 1919 prices gradually advanced until £70 was paid for first marks in August 1919, when rates of freight were less than the Government rate; and war risk insurance was also eliminated.

In February 1917, owing to the existence of fairly large stocks in the country and the necessity of economizing freight space,

¹ Cmd. 788, 1920.

the importation of raw jute on private account was prohibited by agreement between the War Office and the Import Restrictions Committee. A considerable proportion of the stocks were unsold goods held by merchants and middlemen. In order to prevent a sudden appreciation in the value of these stocks owing to the cutting off of imports, the War Office issued an Order, at the same time as the Order prohibiting imports, whereby all unsold stocks in the country were taken over by the Government at prices based on market prices ruling immediately before the Order. During the following six months these stocks were gradually distributed to spinners as required at cost price plus a fixed charge of £2 a ton to cover interest and warehouse charges. In this manner the most critical period of the submarine campaign was successfully tided over, without importing any supplies except for military purposes and yet without any advance in prices. The stability thus secured was of great benefit to Dundee manufacturers and to the trade of the country.

At the end of six months stocks had been considerably diminished. In order to maintain production of jute goods required for other than military purposes, such as bags and packing materials for all kinds of food and merchandise, the War Office now had to make arrangements with the Ministry of Shipping and the Import Restrictions Committee for a resumption of jute imports on a limited scale for the civilian trade.

At first sight it might seem that the simplest and most convenient way of obtaining these supplies would have been for the Government itself to have bought them in the same manner as it was already buying its own requirements. But there were three or four reasons why this course was not adopted in the case of jute, as it was in the case of wool, flax, hemp, and a number of other materials. First, there was no world shortage of jute and therefore no reason for the Government to buy up the whole jute crop (except possibly to protect the interests of the native growers; but that was the business of the Government of India). If, however, the British Government had constituted itself a monopolist in the United Kingdom, it might have been difficult to resist a demand for a guaranteed price, which would then have had to be extended to the whole crop. It was therefore desirable to preserve

as far as possible the appearance of a free market. Secondly, the spinners were the best judges of their own requirements, and though it was easy for the Government to satisfy them with the standard grades which they required for military purposes, it would have been difficult and troublesome to satisfy their demands for the wide range of qualities, including some specialities, which they required for civilian trade. Thirdly, a Government monopoly would have hit the merchants and middlemen; it would have been embarrassing to find work for them all to do. Lastly, there was the general principle, which underlay most forms of war-time control, that since the emergency was only likely to be temporary, any unnecessary dislocation of normal trade channels would react unfavourably on the resumption of private trade after the war and was therefore to be avoided wherever possible.

Some form of control was rendered necessary, however, by the limitations of tonnage laid down by the Ministry of Shipping. In the end a compromise was adopted, which left actual purchasing in the hands of private traders, but gave the Government sufficient control to prevent competition between them for the limited supplies which could be imported. Only spinners were allowed to buy for shipment and the 'spot' market in the United Kingdom remained suspended. Each spinner received a ration figure based on his 1916 consumption, which was ascertained by a census of the whole industry. The ration which he was entitled to receive bore the same proportion to his 1916 consumption as the total tonnage available bore to the total consumption in 1916. Half the ration was supplied by the War Office in the form of raw material bought on Government account for the production of military requirements, and for the remaining half he received licences to purchase and import on his own account. These licences were issued by the War Office in series, each licence being for 250 bales. They were recognized by the Government of India for permission to export from India, by the Ministry of Shipping for the provision of freight, and by the Import Restrictions Committee for permission to import into the United Kingdom.

This system, which seems complicated and troublesome enough compared with ordinary commerce or with complete

Government monopoly, worked without serious difficulty. Manufacturers preferred it to the simpler plan of direct Government purchase of the whole supplies, because it left them greater freedom of choice in selecting the qualities and grades of raw material which they required. At the same time they recognized that it was preferable to unrestricted competition, which would have forced up freight rates, encouraged speculators to forestall their requirements, and placed them in continual uncertainty as regards supplies and prices. As it was, the exporters of raw jute from India, having large supplies available and a limited outlet, had to compete keenly with one another for the privilege of supplying the spinners' limited demand. By this means prices fell rather than rose; and owing to the introduction of a rationing system the enforced shortage in the United Kingdom had the effect of depressing rather than stimulating the level of market prices in India. The market in the United Kingdom was in the meantime virtually suspended.

From 1917 onwards the Jute Department of the War Office acted as purchasing agent for the French and Italian Governments. No profit was made out of these transactions, the jute being invoiced either to the Government or to individual manufacturers at the actual prices paid by the War Office. The Allied Governments were responsible, however, under the general arrangements made by the Inter-Allied shipping authorities, for the provision of their own freight.

An analysis of the Raw Jute trading accounts and balance sheets (see Appendix 4) shows a considerably lower rate of profit than the Flax account. This was due to the fact that operations in jute were safer and less speculative; the risk of eventual loss being less, the business could be conducted on a smaller margin of profit. The War Risk Insurance Account shows total losses of only £257,000 on a total turnover of £11,400,000 and a balance on the right side of £318,400. It will be noticed, however, that in the worst year, 1917-18, two cargoes were lost, valued at £161,000, which practically wiped out the premiums credited to the fund during that year.

Manila hemp

Manila hemp is grown, as its name indicates, in the Philippine Islands. It is a strong coarse fibre, admirably adapted for the manufacture of the strongest cords and ropes. Both for naval and military purposes, as well as for the mercantile marine and the railways, Manila hemp was an essential raw material during the war. About 80 per cent. of the imported supplies were consumed directly and indirectly for Government purposes. No effective substitute for this class of hemp could be obtained; Russian hemp, Italian hemp, sisal and jute can replace it for certain purposes, but not for large ropes which have to stand a considerable strain.

The difficulty in the case of Manila hemp was the remoteness of the source of supply. Owing to the length of the voyage, 1,000 tons of hemp from the Philippines used up three or four times as much tonnage as 1,000 tons of Italian hemp from Genoa. Towards the end of 1916, tonnage became difficult to obtain and freight rates rose at a phenomenal rate. This led to a reduction of imports below the rate of consumption; stocks were reduced and the 'spot' price in the United Kingdom went up by leaps and bounds.

The import trade is in the hands of a few large firms of shippers, who have head offices in London and branches in the Philippines. The shippers sell, not to manufacturers direct, but to merchants and dealers, whose function is to hold stocks and very often to finance the manufacturer while the goods are being made. Manila hemp is one of the few fibres which are satisfactorily graded into standard qualities. Unlike most fibres and many other raw materials, which are sold under vague descriptions such as 'fair average quality', 'common middling', or 'good fair'—a practice which leads to endless disputations and arbitrations—Manila hemp is officially graded by experts appointed by the United States Government and classified into standard qualities known by letters of the alphabet. This useful form of Government interference was designed primarily to protect the interests of the native producers; but it also confers a great benefit on the consumer. The only persons who gain by the lack of standardization which exists in most staple trades are the merchants and

middlemen who profit by the inexpertness of their customers, and the arbitrators who receive handsome fees for giving their awards.

The grade of Manila hemp most in demand in this country for the manufacture of ropes is designated by the letter J. In April 1917 the price of J-grade hemp was £95 per ton c.i.f. London. This price yielded a profit to the importer of about £35 per ton or $57\frac{1}{3}$ per cent., after paying all charges including a handsome rate of freight to the shipowner. These facts well illustrate the futility of reducing rates of freight without at the same time controlling prices. For the only effect of cutting down the share taken by the shipowner would have been to put a larger share into the pockets of the importer. Moreover, to blame the importer and accuse him of profiteering and extortion was beside the point. The course of prices in the Philippines and in this country was equally beyond his control; the former being determined by the anxiety of the grower to sell his produce, and the latter by the competition of merchants, dealers, and manufacturers to obtain supplies. The limited tonnage was like a sluice which separated the two price levels and prevented the stream of supply and demand flowing freely from one end to the other till a common level was reached.

The dangerously low level of stocks and the abnormal price situation led the War Office to intervene. The principal shippers with branches in the Philippines were appointed Government buying agents, and the merchants and dealers in the United Kingdom were employed as distributing agents. The services of each were paid for at a fixed rate of commission per ton. The shippers received 30s. per ton and the distributing agents at first 8s. 9d. and later 12s. 6d. per ton.

It is worth noting that the sudden reduction of the shippers' margin from £35 to 30s. per ton was accepted by them, not merely without protest, but almost with relief. They admitted that they felt almost ashamed to be making such high profits. It brought them little advantage, for the Government took most of it by means of the Excess Profits Duty; but meanwhile they incurred a certain amount of resentment from rope manufacturers, who complained that while the shipper was bleeding them, their own profits were

being limited by the Government's new practice of examining their costs.

The procedure adopted caused perhaps less friction and less difficulty than any other scheme of control. The five or six firms in the import trade were on good terms with one another and were perfectly willing to co-operate with the Government. The managing director of the largest firm accepted an invitation to serve as a whole-time Government servant and to direct the operations of a Committee of the agent firms' representatives which was set up in the Philippines. The Ministry of Shipping allocated the necessary tonnage at Blue Book rates of freight, and the Treasury provided the dollars necessary to finance purchases. In the eighteen months to the Armistice 106,000 tons were bought at an approximate cost of £5,000,000.

An interesting point arose in fixing the selling price of Government hemp. The War Office was now in a position to sell at about £60 per ton and still make a profit owing to the reduction in the rate of freight. But a sudden fall of £35 per ton in the value of their stocks would have caused a serious loss to manufacturers and dislocated trade conditions. Moreover, there was no certainty as to the future course of prices in the Philippines, and the object of the War Office was to maintain prices at a uniform level in the home market. It was therefore decided to fix the selling price of J grade at £85 per ton instead of £95, thus giving a profit of £25 per ton to the Hemp Department. Instead of competing for supplies in a restricted market, manufacturers were now rationed at the fixed price in accordance with their normal consumption, preference being given to requirements for Government purposes. They were thus relieved of all anxiety as to their supplies and the fluctuations of the market ; but in return had to submit to a more rigid determination of costs and profits under the costings system.

When the United States entered the war, American competition forced the price up in the Philippines to such an extent that the War Office margin was soon wiped out and in January 1918 the price of J-grade hemp had to be advanced to £100 per ton. After the Armistice Government purchases came to an end and a sharp fall took place in the Philippines. Thereupon the War Office reduced its prices to the lowest level at which hemp could be

bought and shipped to the United Kingdom, and in consequence heavy losses were incurred as an offset to the profits made at an earlier stage. Later when prices again advanced in the open market, the remaining Government stocks were realized at a good profit and the Hemp Department wound up with a balance on the right side.¹

¹ Trading Accounts and Balance-sheets are given in Appendix 5.

CHAPTER VIII

ARMY BOOTS

The Duke of Wellington on army boots — Achievements of boot industry during the war — Quantity, quality, and price — Organization and co-operation between Government and industry — Early developments — Appointment of business organizer — Stimulation of production — From trade patterns to regulation patterns — Examination of costs and profits — Fixing different prices for individual firms — Objections to strict application of costings — New system of group prices — District Committees — Levelling up the inefficient.

Boot repairs — A large-scale industry run by the War Office — New methods and new machinery.

War-time boots — Extension of costing and control to supplies for civilian population.

THE Duke of Wellington once summed up his philosophy of army supply in the following words: 'The most important item of equipment for a soldier is, first, a good serviceable pair of boots; second, another good pair of boots; and third, a pair of half soles.' Napoleon said that armies march on their stomachs. The Duke of Wellington thought it more important to observe that they march on their feet; a hungry man may sometimes make a good fighter, but an ill-shod soldier is no fighter at all.

In the present chapter some account will be given of the steps taken to provide 'the most important item of a soldier's equipment'. Little has been heard about this branch of supply, because for almost the first time in history the boots supplied to the army from 1914 to 1918 were satisfactory in quality and quantity. There was no boot shortage and no boot scandal. This marks a new epoch in the history of army contracts.

The British boot industry is deservedly proud of its war record. From August 4, 1914, to March 31, 1919, it manufactured more than 60,000,000 pairs of boots for the British and Allied armies. In spite of the scarcity of tonnage, the difficulties of obtaining raw materials, the alterations in plant needed for the production of large numbers of army boots, and the calling up of skilled workers for the army, the output of the industry never fell short of essential requirements. In addition to the unprecedented demand for military purposes—in 1916 the Russian Government

placed a single order for seven million pairs of boots—the civilian population was still able to buy all the boots it required and under the War Time Boot Scheme was provided with millions of pairs of good quality at specially controlled prices.

Not only was production able to keep pace with the demand, but the boots supplied to the armies reached a high standard of quality. In previous wars there had been frequent scandals owing to the inferior quality of the boots supplied. Both in the Crimean War and in the Franco-Prussian War shoddy boots and 'paper soles' caused hardship and misery at the front and much heart-searching and denunciation of incompetence and rapacity at home. There were no paper soles in the boots supplied to the British or Allied armies in the Great War. Their workmanship and wearing qualities were the best that the industry could produce. The majority of the troops were better shod than they had ever been as civilians.

But the industry has not only reason to be proud of the quantity and quality of its output. It can also boast that from the beginning of the war to the end there was little profiteering. The British and Allied armies were supplied on special terms which were worked out with the aid of the Government's costing experts, and left little more than a reasonable pre-war standard of profit. Under the War Time Boot Scheme, which was introduced in 1918, the costings system was extended to the supply of boots to the civilian population, the retail price being fixed so as to allow a reasonable margin to the retailer.

These results were only accomplished by extensive measures of national organization and control and by the closest co-operation between the Government and the industry. In building up the organization necessary the most important factors were personal and psychological. As early as October 1914 the War Office was fortunate in obtaining the services of Sir Edward Penton, K.B.E., who was widely known and respected as a partner in one of the leading firms of boot and leather merchants and manufacturers. In addition to enlisting the services of one of the foremost experts as chief of the Boot Department, the War Office received energetic and loyal support throughout the war from the President of the Boot Manufacturers Federation and the President of the United

Tanners Federation. The boot and leather trades were organized during the war with less friction and sectional controversy than many other industries; and the chief reasons for this were first the personal influence of the leading men in authority, and secondly, the fact that the boot and leather trades were less individualistic and had already reached a higher stage of organization and efficiency than was general in British industries.

Early in the twentieth century British boot manufacturers were exposed to keen competition from American manufacturers, who had endeavoured to capture the British market by flooding it with boots and shoes produced in large quantities with up-to-date machinery. As a result of this invasion British boot manufacturers took active measures to improve their methods of production. They profited by the experience of their competitors and studied their methods and machinery. Up-to-date machinery was installed and obsolete plant was scrapped. In the year before the war the British boot trade was exporting seven times as many pairs of boots as were being imported from abroad. The energy and initiative displayed in meeting American competition enabled British manufacturers not only to hold their own, but to compete with increasing success in the markets of the world.

The normal requirements of the British Army for boots in time of peace were about 250,000 pairs per annum. These requirements were easily met by inviting competitive tenders from manufacturers. A few large firms, mostly concentrated in Northamptonshire, specialized in the standard army boot. There were no large reserve stocks in army depots, owing to considerations of space and economy, and no plans were in existence for rapidly expanding production to meet an emergency such as that which arose in August 1914.

The course of events in the first few months of the war has been described in a previous chapter. Almost immediately the system of centralized buying broke down. Local commands and Territorial Force Associations did their best to buy boots of any kind, but for several weeks most recruits had to be content with the boots they had brought with them from civilian life. At head-quarters large purchases were made from stock. The warehouses of dealers, factors, and large stores were ransacked, and

the market was stripped bare. Even so it was impossible to keep pace with the flood of recruits pouring into the depots, and for a time even the troops in France had to be content with a miscellaneous assortment of 'trade patterns', large quantities being required to replace stores lost in the retreat from Mons. For a time everything was in confusion. Inadequate and overworked staff, lack of accommodation, congested depots and warehouses, competitive buying by local commands and Allied Governments, uncertainty as to future requirements, the inertia of the official machine, and the activities of 'sharks' and speculators all combined to create a situation which might have had serious consequences. Fortunately the period of preliminary chaos did not last long. Only years of preparation for a European war on a scale never dreamt of could have prevented it, and only an organization which was essentially sound and efficient could have reduced it to order in so short a time.

The steps by which this came about have been indicated. Closer relations began to be established between the Government and the industry. Co-operation was achieved by personal contact and conference. The diplomacy of pre-war negotiations gave place to friendly discussions between experts. These methods were successfully practised by the Board of Trade officials responsible for helping the Allies to obtain their requirements and their success had attracted Lord Kitchener's notice.

Early in 1914 the French Government applied through its representative on the Commission Internationale de Ravitaillement for permission to place orders for two million pairs of boots of the French regulation pattern in the British market. The novelty of the design rendered it doubtful if such a large order could be carried out in reasonable time. But among the experts who were called in to advise the Commission Internationale de Ravitaillement was the head of one of the largest firms of boot and leather merchants and manufacturers. This firm undertook to place its organization at the disposal of the French Government for the purpose of securing delivery of the boots required. The arrangement proved satisfactory. By the middle of November 1914, within three months of the placing of the first order, a million pairs of boots had been dispatched to France, and the whole two

million pairs had been completed and delivered by the following March.

When Lord Kitchener had secured the services of the Director of the Exhibitions Branch of the Board of Trade and had appointed him to the post of Director of Army Contracts, Sir Edward Penton, the head of the firm which had carried through the supply of boots for the French Army, was invited by the War Office to give up his private business and to undertake the organization of the supply of boots for the British Army as a salaried Government servant. This was one of the first occasions on which a civilian expert was taken from private industry and appointed to a responsible post in the official machine. Only the extreme emergency and the acute anxiety felt as to the possibility of meeting the vast demand from the troops rendered such a step acceptable to both parties. As it turned out no appointment made during the war was so abundantly justified. The War Office had found just the type of business man that it needed—a first-rate organizer who knew how to adapt himself to work in a Government office. Not only did he possess a wide and specialized knowledge of the boot and leather trades, but his ability and popularity gave him widespread influence and inspired confidence.

Within a short time a new Army Boot Department had been organized with head-quarters at Marylebone, and a skilled staff of specialists had been drawn from the trade itself. In the first few weeks of the war, the congestion in the regular army depots was such that it was impossible to handle more than about 10,000 pairs of boots a day. When the new depot was in working order, as many as 60,000 to 70,000 pairs could be unloaded, inspected, and re-issued in a single day. At one time 200,000 pairs were dispatched to the front within twenty-four hours. In the middle of 1915 there were more than five million pairs of boots in store. Sixty different patterns of boots were required by the British and Allied armies, some of which had to be made in ten or twelve different sizes. In addition to the usual ankle boot issued to the troops, there were knee boots for cavalry behind the line; gum-boots for use in the trenches; mosquito boots for use in tropical countries; slippers and shoes for hospital use; special boots for

aviators ; women's boots for the W.A.A.C. ; and a number of other special varieties.

While arrangements were being made at head-quarters for handling and inspecting the millions of boots required, steps were taken to induce manufacturers to expand their factories and plant. The quantity of heavy boots required was far in excess of the normal production. It was therefore necessary to induce firms which before the war had specialized in the manufacture of lighter boots for town wear and women's and children's boots and shoes, to install new plant and to train their workers for the manufacture of army boots.

Until the end of 1914 the chief consideration was to get supplies. Trade patterns of almost any kind were accepted from stock, and manufacturers were invited to tender for two subsidiary patterns easier to make than the regulation pattern. It was not till January 1915 that it was found possible to supply only regulation pattern boots even to the troops in France, and it was only a year later that there were sufficient regulation pattern boots to supply all the forces at home and abroad. These facts emphasize the vast amount of expansion and alteration of plant required to cope with the army's requirements. Eighteen months elapsed before the supply of regulation pattern boots had fully caught up with the demand.

The question of price was of secondary importance in the early stages of the war, but steps were taken to put a stop to the continuous rise of prices more promptly than in the case of many other articles. The pre-war price of regulation pattern army boots was about 13*s.* per pair. By October 1914 the price had rushed up to 19*s.* or 20*s.* per pair, and the highest price paid during the war, 22*s.* 6*d.* per pair, was reached as early as July 1915. Even at that time the price would have been considerably higher but for action already taken to modify the natural operation of market forces.

Before the end of 1914 the normal system of competitive tendering had been modified. Orders were placed in large quantities sufficient to keep the factories fully employed for six months ahead, and prices were kept down by bargaining and informal negotiation below the highest level quoted by some manufacturers. As early as April 1915, nearly a year before the Defence of the

Realm Regulations had been amended to legalize the application of the costings system, manufacturers were asked to supply figures of costs and to justify the prices asked by disclosing their estimated net profit. By this means the normal price paid was gradually brought down from about 22*s.* to 18*s.* 6*d.* per pair. At an early stage it became clear that the output and price of the finished article depended chiefly upon the supply and cost of the raw materials. It therefore became necessary to go behind the boot factories and to deal with the sources of raw material. The resulting arrangements with the tanners are described later.

When power had been obtained in February 1916, under the amended Regulation 7, to investigate manufacturers' books and to requisition output at prices based on cost and a reasonable profit, the costings system was applied more strictly and substantial reductions of price were found possible. Each manufacturer was required to submit costings certified by a chartered accountant of recognized standing, and these costings were individually examined by the experts and accountants employed by the War Office. Owing to the great variety of leathers used, it was not possible to determine a fixed schedule of prices which would be generally applicable. The cost of production was found to vary greatly in different factories, depending on the standard of organization, the overhead charges, and the skill of the workers. The plan first adopted, therefore, was to lay down a fixed rate of profit, applicable to all factories alike, and to add this to the certified costs of each individual factory.

Though this method was successful in bringing about a substantial reduction in the total expenditure of public funds, it was found to involve much delay in the settlement of accounts and an unnecessary amount of work. There are approximately three hundred boot manufacturers in the country and nearly all were engaged on army work. To examine each individual firm's accounts and to fix a separate price for each was a colossal task. And though this was the logical outcome of a strict application of the principle of paying on the basis of cost and fair profit, it was open to the serious objection that the higher the overhead charges and the greater the inefficiency in any factory the higher

was the price paid. Such a result was unfair and uneconomical. Overhead charges were bound to be heavier in certain factories, such as those which specialized in fancy shoes and specialities, and it was right that firms which had incurred a heavy expense in adapting unsuitable machinery and premises to the production of army boots should be compensated by receiving a rather higher price than the regular army boot contractor. But where higher costs were due to inefficiency, extravagance, and bad organization, and lower costs to efficiency and good management, it was anomalous and unfair to fix prices strictly on the costings system for each individual factory. The effect was similar to that of the Excess Profits Duty; economy and efficiency were discouraged. This difficulty, which arose in other trades and industries subject to control, will be treated more fully in a later chapter on the Costings System.

In the boot industry the solution adopted was a compromise. Neither a uniform price for all nor individual prices for each were satisfactory. After the first experiment, therefore, when more exact knowledge had been obtained of the chief causes of variation in the costs of production, a new system was introduced, under which uniform prices were paid to groups of manufacturers, whose costs of production were approximately the same. This meant that the prices varied roughly according to districts, each district tending to specialize in normal times on a particular type of product. A committee of manufacturers was appointed in each district, which negotiated with the War Office experts on the basis of information obtained by chartered accountants as to actual costs. By this means the variations in the prices paid for the same type of boot were reduced to reasonable proportions, and a great economy of time and labour was rendered possible. It might be supposed that this system of grouping manufacturers would strengthen their hand against the Department. In practice the opposite result was achieved. The majority were satisfied if the normal cost of the average firm was taken as the basis of calculations, and were not unwilling to see the less efficient firm penalized by receiving less than a normal profit owing to its higher costs. The general effect therefore was to encourage efficiency and economy by levelling up without levelling down.

Boot repairs

Second only in importance to the manufacture of new boots was the organization created for repairing old boots. During the last year of the war more boots were being issued from army repair workshops than were being received from manufacturers. In 1917 250,000 to 300,000 pairs of new boots were being delivered to the War Office each week. In 1918 the weekly deliveries of new boots fell to 150,000 pairs and the output of repaired boots rose to 250,000 pairs a week. The repair of army boots had become a large-scale industry organized and run by the State. Boot repair workshops were attached to all the overseas forces. The boot repair factory set up by the Army Ordnance Corps at Calais had an output of over 30,000 pairs a week. In Great Britain four repair factories were established and were run almost entirely with women's labour. In addition to the large factories there were several hundred regimental workshops in which soldier labour was employed.

In the repair factories the work was done for the most part by machinery of a new type invented by an official in the Boot Department. In the regimental workshops where the bulk of the work is done by hand, subdivision of labour and team work were introduced, and a collective bonus was paid on all repairs exceeding an output of six pairs per man per day. Under the old system three pairs per man was a usual day's work. The private contractor was no longer employed for repairing work.

The repairing organization consumed a large quantity of boot leather. At the London factory alone two million lb. of leather were used in the first nine months of 1918, and several million pairs of half soles were issued to repair workshops at home and overseas.

War Time boots

Towards the end of the war the provision of essential supplies for the civilian population became almost as important a part of the Government's duties as the supply of army boots. The beginning of control of civilian prices was an order issued on August 31, 1917, releasing for civilian consumption certain descriptions of sole and upper leather made from imported hides.

The prices were limited to 2*d.* per lb. over the prices paid by the War Office, and a certain proportion was allocated for the needs of boot repairers. Early in 1918 a system of rationing leather supplies was introduced under the Leather Certificate Scheme, and the War Time Boot Scheme was launched.

The object of the War Time Boot Scheme was to enable the civilian population to obtain boots and shoes of sound quality at prices below the market prices ruling at the time. Leather was allotted to manufacturers below the market value and profits were limited to a reasonable standard by the application of the costings system. Every boot and shoe produced was branded with the fixed retail price, which allowed a reasonable margin both to the wholesaler and retailer. During 1918 fourteen million pairs were sold and another seven million were placed on the market in the first three months of 1919, before the scheme was brought to an end.

CHAPTER IX

HIDES AND LEATHER

Shortage of leather for military purposes in first six months of war — Prices rise — First intervention of War Office in January 1915 — Conference of Tanners in Leathersellers' Hall — Information of probable requirements supplied in confidence — Agreement concluded with regard to production and prices — Heavy hides in the home market — Prices controlled by Tanners Federation — Extension of control early in 1916 — Requisition of tanners' output — Determining costs of production of leather — Reduction of tanners' profits — Standard prices for Army leather — Stocks in merchants' hands requisitioned at different prices based on cost price to holder — Advantages of uniform maximum price — Allocation of leather to manufacturers — Exchange of light leather for heavy hides from France and Italy — Prices of hides in South America.

Government purchase of tanned kips from India for upper leather, May 1916 — Supplies for civilian consumption — Curriers employed on commission — Trading accounts analysed.

Government leather purchases in the United States — The Leather Council — Review of Government's policy and results of control.

IN the early months of the war there were no large reserve stocks of leather and there was soon a serious shortage of the heavy leather required for army boots, and for harness, saddlery, and equipment. Six months at least were needed before production could be fully adapted to army requirements. But it was commonly thought in 1914 that the war would be over in a few months; and tanners were naturally reluctant to take the risk of having large quantities of heavy leather left on their hands at the end of the war. In consequence, the price of army leather rose steeply during the first six months of the war, and the amount in process of production was still insufficient to meet the needs of the army in December 1914.

At this date a step was taken which marks the beginning of State intervention in the leather industry. It was seen that if the output of boots and leather goods was to be increased the War Office would have to go behind the boot manufacturers and enter into direct negotiation with the tanners. Fortunately the tanning industry in Great Britain is well organized, and contains in the United Tanners Federation a representative body with which

the Government was able to negotiate. There are not more than about eighty large tanners in the country, so that organization for war purposes presented far less difficulty than in the engineering or textile industries.

A meeting of tanners was convened early in January 1915, in the Leathersellers' Hall, and was addressed by the Head of the War Office Boot Department. The War Office wanted to ensure that sufficient heavy leather would be forthcoming to satisfy the requirements of army boot manufacturers and that prices would not be continually forced up. But it was contrary to the rules of secrecy imposed on Government officials to disclose the total requirements of the War Office for army equipment, and it was impossible at that time even for the civilian head of the Boot Department to obtain an exact estimate of the boots likely to be required for any long period ahead. In such circumstances a less enterprising man would have allowed things to drift, or would at least have waited until he had received specific authority from the Secretary of State for War to make an official statement to the tanners as to the amount of leather the Army would require—information which might possibly have reached the enemy and given him valuable hints as to the size of the British Army.

Fortunately, as a business man new to official regulations, he decided to go ahead on his own authority and risk committing an indiscretion. The tanners said that they were ready to provide sufficient leather and to keep prices reasonably steady so long as they were officially informed how much would be required for a period of six months ahead. He therefore agreed to tell them in confidence what he estimated the Army would require. The tanners thereupon promised to put enough hides into their pits to produce this quantity and not to raise their prices, so long as they were able by combination amongst themselves to prevent the price of heavy hides rising against them. A few months later a similar agreement was entered into with regard to the supply and price of equipment and saddlery leather.

The price of heavy hides in the home market had risen from 7*d.* per lb. before the war to 14*d.* in the middle of 1915. When the agreement with the tanners had taken full effect, the price of native hides fell to 10½*d.* per lb. This fall in the market price of

hides was due, not to State control, but to concerted action on the part of the tanners taken in co-operation with the Government. British butchers had no other market for their hides, and the United Tanners Federation was able to induce its members not to pay more than an agreed price. The tanners' own organization thus rendered it unnecessary for some time for the Government to extend control over the British market for raw hides.

This system of indirect control lasted until the end of 1915. Early in 1916, however, the position became more difficult. In addition to the growing needs of the British Army, 7,000,000 pairs of boots and 6,000 tons of sole leather were ordered by Russia, 1,500,000 pairs of boots by Italy, 150,000 pairs of boots by Belgium, and 60,000 pairs by Serbia. Difficulties of finance and shipping rendered it important that Allied needs should be supplied as far as possible in Great Britain rather than in the United States, and in consequence active steps had to be taken to increase the production of leather and to control prices.

The first step taken was to impose a stricter control on the price of domestic hides, which showed a strong tendency to rise under the influence of the largely increased demand for boots and leather. Negotiations were opened direct with the butchers, and the price was finally fixed at 10*d.* per lb., an increase of 40 per cent. above pre-war values. With the exception of seasonal adjustments of $\frac{1}{2}$ *d.* per lb. the same level of prices was maintained up to the end of the war. Compared with world prices this stabilization of the price of native hides represented a saving of well over £3,000,000 per annum in public expenditure.

The next step was to extend a closer control over the production of sole leather. The increased military demands made it necessary to use a wider range of leathers. An order was accordingly made under the recent amendment of the Defence of the Realm Regulations, requisitioning the whole output of tanneries suitable for military purposes.

It was now possible to apply the costings system in a systematic manner to the tanning industry, and to fix the prices of sole leather on a sound basis. But this proved a task of great complexity. The value of the leather produced varied according to the method of tanning adopted, and it was accordingly necessary to fix the

relative value of some thousands of different qualities of leather. The value of the various tannages was determined by a representative committee consisting of three tanners, a leather merchant, and three boot manufacturers, and at the same time investigations were made by cost accountants attached to the Department into the cost of the production of sole leather, the profits then being earned, and the normal pre-war profits in the case of seven representative tanners. As a result of these inquiries it was found possible to reduce prices by an average of about 4d. per lb. compared with the prices ruling before the extension of control. Tanners' profits were henceforth slightly above the pre-war standard, but considerably below what they had been earning during the first two years of the war. Adjustments of prices were subsequently made at quarterly intervals to meet variations in the price of raw materials.

It was found impossible to determine the exact amount of profit earned on army leather. Hides could not be standardized to the same extent as other raw materials, since they 'threw' varying quantities of leather suitable for military purposes. From each hide a considerable proportion of leather unsuitable for army purposes was produced, and the profit earned depended on the prices realized for the unsuitable leather sold for civilian consumption. It was possible, however, to ascertain the total profit earned on military and civilian leather together, and by this means to arrive at a reasonable basis for fixing standard prices for the former.

In addition to requisitioning the tanners' output it was necessary to take possession of stocks of suitable leather in merchants' hands. Orders were made under Regulation 2B requisitioning all 'bends' exceeding ten pounds in weight, and later the minimum weight was reduced to six pounds. Inspectors visited merchants' warehouses and ear-marked the stocks of suitable quality. Payment was made on the basis of the cost price paid by the merchant with the addition of a normal profit. This meant that different prices were paid varying according to the date when the leather had been acquired by the merchant.

This step was only taken with great reluctance. The amount of work involved in requisitioning and valuing a vast number of

separate lots laid a heavy burden on the official staff. An idea of the complexity of carrying through the operation may be gathered from the fact that as many as 65,000 different prices had to be calculated and scheduled separately. Requisitioning from stock on the basis of the price actually paid by the holder was found too cumbrous for frequent use and was avoided wherever possible in most other schemes of control. The device which more and more took its place was the fixing of a uniform maximum price based on an estimate of the average cost to the holder, and then requisitioning the whole of the stocks at the same level of prices. This procedure was legalized by the amendment of Regulation 2B which provided that where a maximum price had been fixed the price payable for goods requisitioned from stock should not exceed the maximum price so fixed.

Having secured possession of the available supply the War Office next had to arrange for the distribution of the leather to boot manufacturers. It was here that fresh difficulties arose which might have caused much friction and discontent, if the trade had not been consulted and allowed to have their own way. In place of a hard and fast rationing system under which the leather would have been allotted as equally as possible all round, every manufacturer was left free, so far as circumstances permitted, to choose the particular brand of leather to which he was accustomed. The leather from each tannery has an individuality of its own, and boot manufacturers and tanners alike were anxious that the usual connexions between them should not be broken. This concession to trade custom made it rather more difficult for the War Office to ensure that the leather was fairly apportioned, and constant attention had to be given to the marginal cases where supply and demand could not be adjusted by friendly arrangement. Leather merchants who were accustomed to act as go-betweens were still employed, but their customary rate of commission of 4 per cent. was reduced by War Office intervention to 2 per cent. on all leather for army purposes passing through their hands.

Interference with the usual trade channels was thus reduced to a minimum, and though the system did not work automatically and necessitated close supervision to ensure that every boot manufacturer obtained his fair quota of army leather, it worked

satisfactorily enough and caused less friction than a more systematically organized and logical scheme would probably have entailed.

While arrangements were being made for regulating the production and distribution of leather and for controlling the price of native hides, attention was also being given to the supply of raw material from abroad. Early in 1915 arrangements had been made with the French and Italian Governments whereby heavy hides which could be spared were sent to this country in exchange for light leather needed by the Allies. Direct import of these heavy hides on Government account was arranged with the assistance of the Tanners Federation, and a substantial profit amounting to over £50,000, which would otherwise have gone into the pockets of the importer, was obtained by the War Office and set off against the cost of army boots. Favourable terms were also negotiated with the British Meat Companies in the Argentine for the sale of imported hides direct to the tanners at less than competitive prices. Finally, in February 1917, an order was made under Regulation 2E restricting the amount which might be added to the price of imported hides suitable for military purposes to not more than 1 per cent. in passing from the importer to the tanner, and persons dealing in such hides were required to obtain a guarantee from the tanner who bought them that they would be used for the production of the maximum quantity of army leather.

These measures checked speculation and enabled the Government to have first call on the available supplies. Prices in the world market, however, continued to rise, largely owing to American competition. The prices paid for South American hides, which were 12*d.* to 13*d.* in 1915, rose from an average of 14*d.* in 1916 to 18½*d.* in the early months of 1917. This was the highest price paid for military purposes during the war, though the market touched 21*d.* in the Argentine shortly after America entered the war. Prices declined during the latter part of 1917 and 1918, but after the war rose steadily, until they reached the high figure of 30*d.* at the peak of the boom in 1920. The consumption of South American hides during the war amounted to rather more than 100,000 hides per month compared with an average of

200,000 per month of native hides. These hides provided the greater part of the raw material required for sole leather, and for harness, saddlery, and equipment leather.

Purchase of Kips

It is now necessary to turn to the measures taken to provide sufficient supplies of upper leather for boots. Before the war British boot manufacturers had depended largely on Germany and Austria, though the raw material in the form of 'kips', i.e. cow-hides, was mostly drawn from British India. At the outbreak of war the home production of upper leather was inadequate, and the supply of British cow-hides available for the purpose was reduced owing to the amount required for the manufacture of equipment and harness. In consequence leather produced from East Indian kips had to be permitted in the army boot specification.

Before the war the price of kip leather was about 10*d.* per foot, but the cutting off of foreign supplies and the growing needs of the Army forced the price up by 60 per cent. by the end of 1915. When early in 1916 the heavy demands of the Allies were added to the increasing army requirements, the situation became menacing.

Partly in order to check speculation and reduce prices, but mainly in order to make sure that sufficient supplies would be forthcoming, the War Office decided in April 1916 to purchase and import kips on Government account, employing the Government of India as its agent for buying from Indian tanners. The advantages which it sought to obtain were, first, to eliminate speculation and regulate prices; secondly, to control the cost of shipping, handling, and dressing the hides; and thirdly, to determine the uses to which the hides should be put, and the distribution of the resultant leather.

At first Government purchase was confined to kips suitable for military purposes, namely, East Indian tanned kips of 6 lb. and upwards and Bangalore tanned kips of 7 lb. and upwards. All kips not actually in process at the date when the scheme started were taken over at prices based on the market prices ruling between May 6 and 11, 1916. But in a short time the market price of inferior kips not required by the War Office rose above the prices

paid under the Government scheme, and tanners in India had a strong inducement to deal only with these inferior grades. Consequently the War Office authorized the Government of India to buy the whole production of kips on the same basis of values. Those that were unsuitable for military purposes were sold to tanners for the civilian trade, and the profits realized were credited to Army funds. Part of the leather produced from suitable kips was also sold for civilian consumption. In June 1917 inferior kips were selling at 32*d.* per lb. in public auction, while the price paid by the War Office was 16½*d.* per lb.

The methods adopted for buying, dressing, and allocating the kips were similar to those later adopted in the case of Colonial wool. The Government of India supervised purchases in India, employing selected merchants to buy from the producers and resell to the Government at fixed prices. The kips were shipped in requisitioned freight at Blue Book rates as Government stores, and on arrival in Great Britain they were handled by the usual importing houses for a commission of ½ per cent. on the value. War Office experts inspected each consignment and determined the destination. About two hundred firms of curriers were employed as agents for dressing the kips and manufacturing them into leather under the directions of the War Office. They were paid a commission for their services, depending partly on the quality of leather they produced, and had to account for all the leather produced as Government property. After further inspection and selection the leather was delivered to boot manufacturers engaged on Government contracts. The manufacturer was debited with the value of the leather received and the Department was finally reimbursed by deduction of the value of the leather from sums due to the contractor for the finished boots.

While upper leather made from controlled British cowhides was costing in the middle of 1917 21*d.* per foot, or 40 per cent. above the pre-war value, kip leather was obtained under the above scheme at 12*d.* per foot, compared with about 10*d.* per foot before the war and 16*d.* per foot before the scheme was introduced in May 1916. In addition to this large saving, amounting to nearly £2,000,000 in 1917, a substantial trading profit was realized on kips and leather sold for civilian purposes.

In 1917 the scheme was extended to cover raw kips, as well as rough tanned kips, partly in order to supply the requirements of the Italian Government. Further Government purchases of hides were also made in British East Africa and in New Zealand.

The trading accounts issued after the war show that large stocks of kips amounting to 105,000 bales remained unsold on March 31, 1919. This was primarily due to shipping restrictions, which made it necessary to hold back supplies of kips unsuitable for military purposes. At one time it was feared that these unsold stocks would result in a loss. But the general rise in price of all classes of leather during the boom years of 1919 and 1920 enabled the Government to dispose of its surplus at a good profit.

The total expenditure on the Kips and Raw Hides Account for the three years 1916 to 1919 was £23,542,000. The total profits shown in the balance sheet of March 31, 1919 was £1,815,688, in addition to a credit balance of £650,000 on account of War and Marine Risk Insurance.

In addition to purchases of kips and hides the War Office found it necessary to buy sole leather and upper leather in the United States. In February 1917 private imports of leather from the United States were prohibited owing to considerations of finance and shipping, and such limited quantities as were necessary for military purposes were purchased on Government account. After the Armistice large purchases of upper leather were made for the sake of assisting the industry to recover its normal home and export trade. Supplies amounting to forty million feet were obtained at prices which would have enabled the Department to resell at a profit of 50 to 80 per cent. when the leather arrived in Great Britain. But on the recommendation of the Leather Council and in order to benefit the consumer by means of the War Time Boot Scheme the selling price was fixed at a small margin over cost.

On the administrative side an important part in the development of control was played by numerous committees and sub-committees, on which the various sections of the trade, including both employers and employed, were represented. A full list of these committees as they existed in the middle of 1917 is given in Appendix 6.

In 1918 the Central Advisory Committee was expanded and transformed into a Leather Council, which became the responsible body for formulating policy in regard to control of the civilian trade. In November 1918, at the request of the United States Government, an Inter-Allied Leather and Hides Executive was set up in Washington for controlling supplies and distribution in the world market. But soon after the Armistice the Executive was abandoned.

In summarizing the chief features of boot and leather control reference must be made to the important part played by existing trade organizations, in particular the United Tanners Federation and the Boot Manufacturers Federation. Not only did these bodies facilitate the measures of control which the Government was compelled to take, but to some extent, as in the case of native hides, they rendered Government control in the form of direct purchase and allocation unnecessary. In the Report of the Director of Army Contracts dated June 1917 the relations of the Government and the industry are described in the following words :

The policy of the Department has been to unload on the trade itself a large portion of the responsibility for dealing with difficulties which are of serious importance not only to the supplies of the Allied Armies, but also to employers and labour in the trade, and which depend very much for their solution on the intelligent co-operation of trade and labour organizations as well as of individual firms. The smoothness with which the elaborate organization of the leather trades has worked, and the ready co-operation which has rendered possible the large changes in methods of trading and production, afford ample justification for the policy.¹

In the Report on Raw Materials issued after the war in May 1920, the close co-operation between the leading men in the industry and the Government is again emphasized, and the advantages of control to the trade itself as well as to the community are shown by the fact that there was no desire on the part of the leather trade to see State control liquidated too rapidly when the war was over. The President of the Tanners Federation was at first of opinion that International Control of Raw Materials for two years after the cessation of hostilities would be extremely desirable.²

¹ Cd. 8447, 1917, p. 20.

² Cmd. 788, 1920, p. 18.

This attitude, which was contrary to the usual attitude of merchants and manufacturers towards State intervention, is largely explained by the corporate feeling already existing in the industry and the degree to which the trade itself participated in the administration of control. As the same Report points out, the Department was always reluctant to enter into trading; its sole object was to assist the leather industry to give its maximum contribution to war needs; private enterprise was encouraged wherever possible to meet the needs of the situation, and 'where purchase was undertaken or manufacture directed by the Department, it was in the opinion of competent advisers necessary for the Department to intervene to meet a situation with which private enterprise for one reason or another was unable to cope'.

To some extent also control was facilitated by the smaller scale of the industry. The number of tanners, curriers, manufacturers, factors, and importers was not so large as to make personal contact and individual attention impossible. The official machine did not descend from the skies like some malignant Providence, whose inexorable decrees outraged common sense and evoked feelings of helpless wrath or righteous indignation. Control was exercised by personal influence as much as by statutory powers; and if the powers wielded were autocratic, the administration of them was tempered by a large measure of popular consent and responsible self-government.

It is perhaps for this reason that the reaction from the idea of association and co-operation since the war has not gone so far in the boot and leather trades as in most industries. The war period left a stimulus towards improved methods of production and towards a better understanding between employers and workers which has not been entirely effaced by the post-war depression. If industry is ever organized in such a way as to reconcile the conflicting interests of employers, workers, and consumers, the boot and leather trades will possibly be one of the first to reach that goal.

CHAPTER X

THE POLICY OF WOOL PURCHASE

Consumption of wool for military purposes — Figures for blankets, flannel, and khaki cloth purchased by the War Office — Restrictions on export — First attempt to introduce costings — Review of wool trade at beginning of 1916 — World scarcity foreseen — Necessity of safeguarding supplies and controlling prices — State purchase of British wool decided June 1916 — Negotiations with Dominion Governments — Purchase of entire clips of Australia and New Zealand, November 1916 — Advantages of centralized purchase — Standardization of prices and qualities — Methods of distribution and sale — Hardships inflicted — Elimination of middlemen.

THE experiments in State control which have been described hitherto were on a modest scale compared with the task which confronted the War Office in dealing with the woollen and worsted industries. Manufacturers in other industries had accepted the new costings system with a good grace, while manufacturers and merchants in the woollen and worsted industries were still being allowed to make unrestricted profits. But the privileged position of the wool trade did not last long. Within ten months from the first application of the 'costings' principle in Dundee, preliminary measures of control had been introduced, and from that time onwards restrictions in the woollen and worsted industries became more and more severe, until finally the position of the jute and flax manufacturers began to appear by comparison almost favourable.

Attempts to regulate prices began with the early negotiations with the Wholesale Clothiers Association to which reference was made in a previous chapter. Prices for uniforms could be standardized because the clothing manufacturer obtained his raw material, khaki cloth, not in the open market but from the War Office at fixed 'issue' prices. But though competitive tendering was thus abandoned in the clothing trade, the process could not at that time be carried farther. The War Office had to buy its khaki cloth in the open market in competition with purchasers of other cloth for civilian and export requirements. Prices steadily rose, but there was not during the first two years of the war any

serious difficulty in getting supplies. Pressure was brought to bear on as many firms as possible to manufacture khaki cloth, and for two years the demands of the army for khaki were successfully met without any more drastic interference than restrictions on the export of cloth suitable for military purposes and of certain qualities of raw wool and yarn.

The position with regard to raw wool up to the beginning of 1916 was satisfactory. On the outbreak of war, the cessation of a large part of the Continental demand and the general paralysis of trade affected the wool trade like all others, but the recovery was rapid. The requirements of raw wool for the army, which in peace amounted to less than 1 per cent. of the wool supplies of the United Kingdom, increased to 20 per cent. of the total consumption in three months. From that time onwards the demand for wool for the British and Allied armies steadily increased, until in 1917 it reached a level which closely approximated to the total pre-war consumption of the United Kingdom.¹

A few figures will show the vast scale of military requirements. The average number of blankets supplied to the army during the last three years before the war was 165,650. The average for the first three years of war was 11,708,430, or seventy times as great. Before the war about a million yards of khaki cloth and a million yards of flannel satisfied the army's annual demand. During the war the total orders placed for khaki cloth (including purchases made in this country for the Allies) amounted to 313 million yards; and the quantity of flannel bought reached 276 million yards. 164 million pairs of socks were bought for the British and Allied armies.²

Foreseeing that its requirements would necessarily be on a vastly greater scale than in times of peace, the Government pursued a cautious policy in regard to raw wool exports. Already in the autumn of 1914 crossbred wool, which is specially suitable for military purposes, was not allowed to be exported, except occasionally to the Allies. At the same time, exportation of Australian wool to America (as well as to enemy countries) was prohibited by the Commonwealth Government in the belief that Germany was buying in the United States. In March 1915, however, after wool

¹ Cd. 8447, 1917, p. 13.

² Cmd. 788, 1920, p. 24.

had been declared contraband of war, this restriction was partially removed.

The result of these measures was that in 1915 900 million lb. of wool were retained in the United Kingdom, compared with an average pre-war consumption of 550 million lb. per annum. The rate of consumption, though it increased considerably during 1915, did not increase in the same proportion as the supply; and many traders carried over heavy stocks of raw material from 1915 to 1916. Export restrictions were relaxed; merino wool was exported freely except to prohibited destinations, and crossbred wool and tops were released more liberally both to the Allies and to certain neutrals.

At the beginning of 1916, as the result of the steady rise in price of woollen and worsted goods and the experience gained in the jute and leather industries, consideration began to be given to the possibility of introducing the 'costings' principle and controlling the prices of subsidiary materials. The new amendment of the Defence of the Realm Regulations, passed in February 1916, enabled the Department to requisition output on the basis of cost of production and fair profit, to require particulars to be furnished as to output, cost, and profit, and to verify them by examination of books. Skilled accountants were appointed and made test examinations of the books of typical firms. Committees were set up in different sections of the trade, and experts in the trade were appointed as whole-time officials of the War Office to assist in negotiating agreed conversion costs for the various stages of manufacture.

Much useful information was obtained in this manner. In particular it was demonstrated that manufacturers' own statements as to cost and profit could rarely be trusted, not so much because of any conscious desire to mislead but because they hardly ever had exact information on the question themselves. The keeping of cost accounts as a means of checking the efficiency of management and promoting economy was almost unknown in the woollen and worsted industries before the war. The examination also showed that here, as in the jute trade, the biggest profits were going to the spinner. The machinery best adapted for spinning yarn suitable for military purposes was not sufficient to meet the

full demand of the cloth manufacturers ; their potential capacity for weaving khaki cloth was greater than that of the spinners to spin khaki yarn. Early in 1916 it was ascertained that a spinner of worsted yarn was making 5*d.* per lb. net profit compared with a normal maximum in pre-war years of 1½*d.* per lb.

By means of these investigations reductions in price were obtained in certain directions, but it soon became clear that in the excited state of the market for raw wool and tops it was impossible to devise a satisfactory costings system. Spinners and manufacturers had bought and were buying their raw material at varying prices from time to time ; to attempt to average out the cost of several deliveries of wool or yarn purchased at different times would have meant that a different basis would have had to be applied to each manufacturer. The only common basis which could be taken was the market price of the day, which in the excited state of the wool market during the first two years of the war, almost always meant the highest price hitherto reached. This meant that manufacturers who had bought some time previously realized very large profits beside which the reductions effected by paying on the conversion cost system would be almost insignificant. Furthermore, there was no guarantee that the price of raw material had reached its highest point ; in fact there was every reason to suppose that it would continue to rise. It was soon realized therefore, as indeed had already been learnt at Dundee, that a satisfactory costings system could only be introduced when the Government controlled the price of the raw material and its products through all stages from start to finish.

Meanwhile the need for controlling the raw material was becoming evident on other grounds also. The economic investigation of supplies, prices, output, trade organization and other relevant information had been entrusted to a statistical branch of the newly established Raw Materials Section. A census of stocks of raw wool and tops in the country including those in the hands of manufacturers was taken early in 1916. Information was also obtained under compulsory powers which presented for the first time a complete picture of the machinery, labour, productive capacity, and output of the entire industry. Statistics and charts were prepared illustrating the world movements of supplies and

prices, based on the best information obtainable by the Government from trade and official sources. The result was that in a short time the War Office had a more complete grasp of the situation as a whole than any private trader could possibly have. It could compare the supplies in sight with its own ascertained and estimated requirements; it could compare the tonnage required with the tonnage likely to be obtainable. By means of copies of commercial cables supplied daily by the cable censorship, it could follow the currents of supply and demand throughout the world, learn the views taken of the situation by traders in all countries, and get timely warning of anticipated future demands. Lastly, it had obtained by its census of stocks in the country a reasonably accurate knowledge of the hidden reserves on which the future course of prices so much depended, and detailed information as to the quantity and quality of wool, which would if necessary be available for military purposes.

The result of these statistical and economic researches was to show that at the moment supplies in the United Kingdom were relatively abundant, owing to the large carry-over from 1915, but that there was a grave prospect of world shortage in the near future. For some time traders were misled by the existence of large stocks into thinking that the position gave no cause for alarm. But a survey of the whole position revealed the following disquieting facts.

In 1916 the world's production had decreased by about 20 per cent. or 300 million lb. compared with 1914. A serious drought in Australia during 1914-15 had reduced the number of sheep from 82 millions to 69 millions. At the same time wool production was falling off in South America owing to the competition of cattle raising and wheat growing. While supply had decreased, demand was increasing. The Japanese were actively buying in Australasia, and the United States were beginning to import wool on a scale never before reached. American import duties on wool were removed shortly before the war, and as a result during 1915-16 the United States purchased nearly ten times the amount of her average purchases of Colonial wool during the three years prior to the war.

The following table shows the changes in the distribution and

value of Australasian and Cape wool in world markets during the years 1913 to 1916.¹ These wools represent about 70 per cent. of the world's exportable surplus.

	Exports to Europe and America (bales)		Average value per bale £	Consumption (bales)			Imported into United Kingdom (bales)
	Australasian	Cape		United Kingdom	Europe	U.S.A.	
1913	2,296,000	484,000	16½	1,043,000	1,675,000	54,000	1,646,000
1914	2,332,000	499,000	17	968,000	1,689,000	169,000	1,601,000
1915	2,157,000	519,000	19	1,923,000	212,000	551,000	2,171,000
1916	1,919,000	500,000	27	1,384,000	273,000	720,000	1,496,000

The earliest attempts of the Government to protect itself had been by means of restrictions on export of raw wool and tops. This policy had been pursued intermittently since the beginning of the war, but it had been unsuccessful in putting a stop to the rise in prices. The chief reason was that since the embargo was removed to a limited extent whenever the position with regard to supplies in sight seemed to justify its removal, foreign buyers continued to purchase in the London market in anticipation of obtaining a licence to export. Though licences to export the full amount purchased on foreign account were never granted, this did not deter the foreign buyer. He argued that he stood at least as good a chance as anybody else of getting a licence sooner or later, and that even if he failed, the value of his property was continually appreciating and he could always resell at a profit when he was tired of waiting for a licence.

It was a long time, however, before the advocates of restrictions on export realized that their policy was inadequate. Most of the officials concerned, and the trade advisers almost without exception, held that it was the only practicable method of intervention; they argued that so long as the Government maintained sufficient supplies in the country, it was neither possible nor desirable to fix prices or to stop speculation. In spite, therefore, of weighty

¹ *Economist*, February 17, 1917.

arguments in favour of Government purchase of raw material on grounds of economy in expenditure and stabilization of prices, this extreme measure would never have been taken if the Cabinet had not been convinced that there was an actual danger of the Allies running short of raw material for clothing the armies.

At the beginning of June 1916, when the British wool season usually opens, the Cabinet had become seriously concerned at the rapid increase in price, the unaccountably large purchases by the United States and the danger of the Allies running short of essential supplies. The position had been discussed with the Prime Minister of Australia, who had expressed his willingness to take control of supplies and prices in Australia, but urged that he could hardly be expected to take any steps in this direction until the British Government had applied similar measures to British wool. The original plan was to purchase only the wool actually required for clothing the British and Allied armies. Since the home-grown clip was in the main of a kind suitable for this purpose, the Cabinet therefore decided to requisition the whole of the domestic wool clip. It was hoped that if the Government could obtain possession of a considerable proportion of crossbred wool suitable for military purposes it might be in a position to dominate the market and avoid the necessity of going further and having to buy Colonial wool as well. At this time the proposal that the Government should become the sole purchaser of wool for civilian as well as for military needs found little support. On June 8, 1916, an Order was accordingly issued prohibiting all dealings in British wool, and during the following two months machinery was rapidly improvised for State purchase of the domestic clip. The methods by which British wool purchase was organized are described in the next chapter.

Colonial wool purchase

By the autumn of 1916 British wool purchase had been successfully launched, and the machinery set up for the distribution of British wool to manufacturers was working smoothly enough to encourage the War Office to embark on the purchase of Colonial wool. The British clip constituted only one-ninth of the British consumption of wool in 1915. Negotiations were

accordingly opened with the Australian and New Zealand Governments for the purchase of their crossbred clips, which amounted to about two-fifths of their total wool production and were specially suitable for military purposes. The Dominion Governments replied that it would be unfair and impracticable to discriminate between the growers of different kinds of wool, and offered to sell the entire clips, both crossbred and merino. There was a natural hesitation on the part of the Cabinet to embark upon such a huge transaction. The estimated value was £22,000,000 for the unsold balance of the Australian clip and £13,000,000 for the New Zealand clip, none of which had been sold. But since the purchase of merino wool was likely to prove a profitable transaction, the Imperial Government finally decided in November, 1916, to take the whole clips, the basis of price being mutually agreed upon at 55 per cent. above the average 1914 prices. On this basis the Australian clip worked out at an average of $15\frac{1}{2}$ per lb. It was also agreed that half the profit realized on the sale of wool for other than military purposes would be returned to Dominion Governments for distribution among the growers. The level of prices fixed was about 10 per cent. below that ruling in the open market at the time, but the arrangement was satisfactory to the growers because it relieved them of the risk of a slump in prices owing to the scarcity of tonnage. The detailed work of collecting, valuing, and paying for the wool was left to the Dominion Governments. Funds were provided by the British Government on receipt of cable advices of the amount purchased from time to time. The provision of the necessary tonnage was arranged by the Ministry of Shipping.

In this manner a transaction unprecedented in the history of the wool trade was carried through by the exchange of half a dozen cables in the course of a fortnight. The audacity of the War Office astonished the trade. In order to avoid speculation and price fluctuations while negotiations were in progress the strictest secrecy had been observed. About five hundred cables relating to wool were held up by the Postal Censorship during the critical fortnight and were only released after negotiations had been concluded and private purchases and sales were no longer possible. In spite of the rumours circulated from time to time few had

expected that the Government would act in so swift and drastic a manner. Fewer still at that time were prepared to admit that there was any necessity for so high-handed a proceeding. But when a few months later, in spite of the scarcity of tonnage, manufacturers found that they were guaranteed a regular supply of raw material at a steady price fixed for periods of six months at a time, they began to realize the advantages of State purchase, and had to admit that in this instance the Government had acted with unusual foresight.

In the middle of 1917 the contract was extended for another year without change, and at the end of that year 110,000 bales of South African wool were bought on the same terms from the Union Government. In 1918 further contracts were made with Australia and New Zealand for the purchase of their entire clips at the same price until the expiration of one year after the end of the war, which was later interpreted to mean up to June 30, 1920.

The official view of these transactions is contained in the following extract from the Report of the Director-General of Raw Materials published in 1920 : ¹

There can be no question that these successive contracts with Australia and New Zealand were wise and statesmanlike measures at the time they were made, and have worked out to the advantage of all the contracting parties. It was an immense advantage to the sheep farmers of both Dominions to have secured to them the purchase of all the wool as soon as it was shorn at a schedule of prices fixed on a remunerative basis. They were thus relieved of all the anxieties connected with the war situation and with the critical condition of ocean traffic. Great accumulations of wool took place owing to the difficulty of providing sufficient steam tonnage during the submarine campaign, and the course of prices when the war should end was unknown. Great Britain on her part received compensating advantages. The control of a sufficient quantity of wool suitable for military purposes was essential for the efficiency and security of the Supply Departments, and it is admittedly the case that from 1917 onwards, wool could not have been obtained from foreign sources so cheaply as it was secured by the requisition of the British clips and the purchase by contract of the Australian and New Zealand clips.

Under the arrangements made for Imperial purchase the Australian and New Zealand Governments prohibited the sale

¹ Cmd. 788, p. 12.

and shipment of wool on private account and set up their own organization for the purchase of the clips direct from the growers. In Australia the Government appointed a Central Wool Committee at Melbourne and local wool committees in the various States ; farmers were required to consign their wool to one or other of the ports of shipment where it was valued by an official valuer. In New Zealand the organization of purchase was undertaken by the Department of Imperial Government Supplies at Wellington. In order to guide the official valuers a schedule or 'bareme' was drawn up, and standard samples were set aside for all recognized qualities of wool. In Australia the official 'bareme' at first contained about three hundred different qualities but was later expanded to include about a thousand. The whole of the Australian clip was thus classified into standard grades and every bale was marked with the number corresponding to its respective quality in the schedule.

The standardization of prices and qualities in the Dominions simplified the task of distribution in Great Britain. The normal custom is for wool to be exhibited in large warehouses in the Port of London, where they are split open and inspected by the buyers before the London wool sales open. Under control a large proportion of the colonial shipments were consigned direct to manufacturers without passing through the London sale-rooms. A large warehouse was opened by the War Office in Bradford, where standard samples, each marked with its appropriate number, were exhibited. Manufacturers then came and selected the sample they preferred and after a time were able to order their raw material by merely specifying the standard number. This system of selling 'on description' proved satisfactory enough for the production of standard lines of goods and was a source of important economies in the handling and transport of wool.

In December 1916 great consternation was caused in the trade by the announcement that the London wool sales would be suspended. The Government was now in possession of the greater part of the supplies and was therefore in a position to regulate both prices and distribution. It was decided that wool should go first to Government contractors, secondly to manufacturers for the export trade, and thirdly for essential home requirements in

order of priority. It had also been decided with the approval of manufacturers that wool should be issued at fixed prices for a period of at least six months, in order to encourage trade and enable manufacturers to compete advantageously in foreign markets. It was obviously impossible to carry out this policy and at the same time continue the system of selling wool by auction, under which the raw material would go to the highest bidder without regard to the use to which it was to be put.

But an ingenious compromise was eventually arrived at. Though the auction sales were suspended and the bulk of the wool was distributed direct, a use was still found for the London wool brokers' organization. Certain classes of wool were distributed in the London sale-rooms not by auction but by allocation at fixed prices to licensed buyers. Licences to buy were issued only to manufacturers, who might employ merchants to buy for them as agents on commission ; but merchants were not allowed to buy on their own account for speculative purposes. The London wool selling brokers pooled their businesses and formed a single agency for distributing wool on behalf of the Government. When a sale was to be held the committee of London wool-selling brokers advertised the lots that would be available and the prices at which they would be sold. Licensed buyers would attend at the hour stated, and as each lot was put up they would simply hold up their hands instead of bidding a price. The broker would then knock down each lot to one of the applicants, endeavouring as far as possible to give each man a turn. In this way all the buyers stood an equal chance of getting what they wanted sooner or later. Such was the reputation for impartiality which the selling brokers enjoyed, that the new system of auction at fixed prices worked surprisingly well. The buyers were satisfied that everything was done fairly and the sales took less time than when competitive buying prevailed.

The system of centralized purchase and distribution at fixed prices adversely affected a large number of wool merchants and importers. It was a serious hardship that they should be entirely excluded from the Colonial wool business, and they made the very natural request that they should be allowed to handle as much wool as they had been accustomed to buy in previous years. This

request the War Office, in accordance with its general principle of not paying commission for services which were unnecessary, was compelled to refuse. In its normal business of buying for the Army the Contracts Department was always trying to eliminate the middleman and to reduce the number of channels through which goods had to pass. The Public Accounts Committee of the House of Commons might have criticized the officials severely, if they had allowed a firm to receive a commission merely on the ground that it was the custom of the trade and that it would be a hardship to cut across established trade connexions. When, however, this principle was applied to the purchase and distribution of the entire raw material of an industry, other considerations besides a rigid regard for economy were bound to carry weight. A question of general principle arose, on which the Cabinet, if it had had time, might well have issued an authoritative pronouncement. When the State undertook centralized purchase and distribution, should the policy be to do this as economically as possible by employing a small salaried staff in a central office, or to maintain the existing channels of trade intact in order not to weaken the position of existing firms and to destroy their connexions and goodwill? In the absence of any authoritative ruling on this question the officials administering control were often faced with the dilemma of either pursuing the path of least resistance and employing firms for services which were not really necessary, or of endeavouring to save expense and thereby inflicting loss on important trade interests.

The total administrative expenses for the distribution of Colonial wool up to March 31, 1919, was one-fifth of 1 per cent. of the total sales. A dozen or so experts and about a hundred ledger clerks were sufficient to look after the distribution of over a hundred million pounds' worth of imported wool. The irony of the situation was that many of the aggrieved firms attacked the Government, not for economizing at their expense, but for extravagance in setting up new offices and engaging 'hordes of officials' to do what could be done more cheaply and efficiently through the usual trade channels. At the Ministry of Food a different policy prevailed. Wherever possible every firm engaged in the trade was guaranteed a share of the business under

control. The practice of the War Office in eliminating the middlemen and creating a new central organization to take their place was not widely followed.

To those in a position to know the facts the real objection to State control of wool and other raw materials was not its extravagance but its ruthless economy ; for the immense savings in public expenditure which it effected were often incompatible with what were regarded as the ' legitimate expectations ' of private traders.

CHAPTER XI

BRITISH WOOL PURCHASE

Preliminary difficulties — Variety of trade customs — Scottish wool trade — Organization of trade in England — Special conditions in Ireland and Wales — Plan adopted in Great Britain — Price and valuation — Wool areas and local staff — Local and Central Advisory Committees — Authorized merchants — Allocation of Clips — Methods of purchase — Complaints — Skin wool — Manx wool — Free carriage — Distribution and sale — Trading accounts.

THE decision of the War Office in June 1916 to purchase the entire wool clip of the British Isles was regarded in many quarters with grave misgiving. The experts were doubtful whether any scheme of State purchase would prove feasible. Farmers and sheep breeders were suspicious, and many wool merchants were so convinced of its impossibility that they confidently expected the decision to be reversed. If there had been no one in the trade prepared to assist the Government, State purchase would have been impossible; but as generally happened during the war, once the Government had decided that State intervention was necessary, it was soon able to obtain the whole-hearted services of some of the ablest men in the trade under the vigorous leadership of Col. F. V. Willey, C.M.G., M.V.O.

It was not an easy task, however, even for men with a life-long experience of the wool trade to devise a workable scheme of State purchase. Customs varied widely in different parts of the country. The wool trade, like other businesses, is so specialized that there was no single man equally familiar with the whole field, who could give a comprehensive account of the various channels of trade and customary practices all over the country. Those who knew most were least able to suggest simple and uniform lines of organization to take the place of the existing variety and complexity. Three main alternative plans were examined. First, to establish Government depots in convenient centres, to which farmers would be required to send in their wool for valuation and purchase by salaried Government buyers. Second, to employ wool merchants as Government agents for buying in the usual

way from farmers. Third, to leave wool merchants free to buy on their own account and at their own risk, and to take over all wool so bought at an official valuation, thus centralizing wholesale distribution, but not 'retail' collection, in the hands of the State. Each of these three alternative plans was rejected as unsatisfactory if applied universally, and the scheme eventually adopted was a compromise designed to suit varying circumstances. The necessity for this will appear from a brief description of the normal methods of buying and selling in force in different parts of the United Kingdom.

In Scotland the general custom was for farmers to consign their wool to large wool brokers in Glasgow and Edinburgh, where it was sold by auction either direct to manufacturers or to Bradford wool merchants; after the sale the broker remitted the price to the grower less his usual commission. The broker was not a buyer on his own account and therefore did not require to be an expert valuer; nor owing to the greater uniformity of Scottish wool, which is for the most part 'blackfaced' or 'cheviot', was there any necessity to grade or 'case' the wool as in England.

The plan for State purchase in Scotland followed the same lines, the only difference being that instead of the value being fixed by the competition of buyers at auction it was fixed by a Government valuer according to an official schedule. The Scottish wool brokers carried on as before, but received their remuneration from the Government and not from the farmers. This was the simplest system and corresponded most closely to the plan of having wool consigned to central Government depots.

In England the system of sending wool on consignment for sale in the London market had never made much headway. The English farmer has a rooted objection to parting with his property before he has pocketed the cash, and has a special objection to sending it long distances to a large place like London, where he thinks it might get lost. This gives the small dealer his opportunity. In some parts of England farmers took their wool to the local market town, where it was sold by auction at a wool fair attended by buyers from all over the country. Where this system was in vogue, it was easily adapted to a scheme of Government purchase. All that was necessary was for the auctioneer

to arrange a certain day on which all the farmers in the neighbourhood would be invited to send in their wool. It was then valued, paid for, and packed by experts employed by the War Office, and the whole process was complete in a day. Unfortunately, however, wool auctions were confined to only a few counties, mostly in the south and west of England. Elsewhere farmers had a feeling that they were cheated at auctions and that the system encouraged the buyers to make a ring to keep down prices. But whatever the reason the auction system was not sufficiently widespread to become the pivot of a Government purchase scheme, as the advocates of the first plan had hoped.

The normal practice in England and Wales was for the farmer to sell his wool on his farm, either to a Bradford wool merchant or to a local country dealer. Agents and employees of the large Bradford firms, including a few manufacturers who preferred to buy direct, travelled round the country negotiating for individual clips. Under this system the farmer was convinced that he could make a better bargain than in any other way, though the expense of keeping a large number of separate buyers joy-riding over rural England had to be paid for by somebody and was not likely to be deducted from the merchant's profit. A possible explanation may be that the English farmer, unlike the canny Scot, prefers the social pleasure of bargaining to the more austere delight of realizing the highest price for his produce. This idiosyncrasy made a modification of the second plan necessary in England.

In Ireland the method of collecting wool was at a still lower level of organization than in England. In most parts of the country it was bought by general dealers or 'gombeen men', who often obtained it not for cash but by a system of barter or in settlement of a debt. In such transactions neither party needed to display much knowledge of quality or value. The local dealers would in turn sell to a few large wool merchants, mostly situated in Dublin and Belfast, who cased the wool and re-sold it to Bradford manufacturers. Irish woollen manufacturers also bought locally either direct from farmers or from dealers.

The Welsh wool trade occupied an intermediate position between Ireland and England. A large number of small dealers were in the habit of buying wool, but many of them were without

expert knowledge and proved themselves incapable of valuing wool correctly.

The chief difference between the English and the Irish schemes was that in England the War Office bought direct from the farmer, employing the usual wool buyers as agents. In Ireland it was clearly impossible to employ all the storekeepers and 'gombeen men' as authorized agents of the British War Office. Even to take a census of wool in Ireland was found impossible. For a time the Order prohibiting dealings was openly defied, and even Bradford wool merchants took it for granted that the British Government would never be able to organize wool purchase in Ireland. It was here that the third plan above mentioned was found useful. With the aid of the Irish Department of Agriculture a satisfactory scheme was soon evolved. Export of wool from Ireland was prohibited except on Government account. Sixteen of the largest firms in Dublin and Belfast were appointed Government agents and local dealings were allowed to go on unrestricted, though Irish manufacturers were only allowed to buy under special licence. The prices which farmers were entitled to receive were posted up all over Ireland. The local dealer bought at his own risk and could only sell either to the Government agents or to licensed manufacturers. If his valuation was neither too high nor too low he could count on making $\frac{1}{4}d.$ per lb. profit, which was allowed in the price paid by the Government agents. Since the bulk of the clip was normally exported the Government was able to control a comparatively narrow 'bottle neck' at the ports, and the leakage by irregular purchase by small manufacturers was never serious. One reason perhaps why this scheme worked so smoothly in Ireland was that the Irish farmer had rarely obtained the full market value of his wool and that when the Government posted up fixed prices corresponding to those ruling in England he was less easily exploited by the local dealers.

In England and Wales direct purchase from the farmer was the only way of getting physical possession of the entire clip and preventing leakages. This necessitated a more elaborate organization, which took some time to get into working order. All wool merchants of good standing were employed as Government agents for the collection of wool from the farmers whose clips they had

purchased in the previous year. Their operations were controlled by District Executive Officers appointed by the War Office in each of the main wool-growing areas and responsible to a Chief Executive Officer in London. A schedule of fixed prices, lower than the market rates previously ruling, was drawn up for all the various classes of wool. A Central Advisory Committee on wool purchase was set up in London, and Local Advisory Committees were appointed in each area to assist the District Executive Officer.

In July a census of the 1916 clip was taken, in which every farmer was asked to state the quantity and description of his wool and the name of the buyer to whom he had sold it in 1915. These returns were tabulated in the offices of the District Executive Officers, who then proceeded with the advice of the Local Advisory Committees to allocate the clips to the wool merchants who had been appointed Government agents. After the wool had been 'cased', or sorted into classes, by the authorized agent, the District Executive Officer inspected it, and the payment due to the farmer was made by the Financial Branch of the War Office on the certificate of the District Executive Officer. Authorized agents received a fixed commission per lb. of wool handled, varying according to the services they were qualified to perform.

Such were the main outlines of the machinery adopted in Great Britain. Apart from minor modifications this plan for State organization of the British wool trade continued in force for three years from June 1916 to May 1919.

Price and Valuation

While the machinery for purchase was being organized, negotiations took place with farmers' representatives as to the price to be paid and the methods of valuation and payment to be adopted. The case put forward by the War Office, with the approval of the Contracts Advisory Committee, was that neither the ruling market prices nor the average of the previous year's prices afforded a fair basis on which to determine the requisition price of British wool. The existing level of market prices was about 75 per cent. above the 1914 level. The War Office offered the average price ruling in June and July 1914 with

the addition of 30 per cent. to cover the increased cost of production. A schedule of prices was prepared on this basis for all recognized breeds and qualities of British and Irish wool. The fixed price was to include delivery to warehouse or railway, and was only to be paid for washed wool in good condition, the usual deductions being made for grease and impurities.

The farmers' representatives made a strong appeal for reconsideration of this offer. They had to accept the principle of taking cost of production rather than market value as the basis of calculation, but they protested that costs had gone up more than 30 per cent. The Scottish farmers made out the strongest case as they were able to produce actual figures taken from cost accounts. The War Office accordingly agreed to increase the percentage to be added to the 1914 level to 35 per cent. This meant that wool, which before the war was worth 1s. per lb. and in June 1916 was fetching about 1s. 8d. in the open market, was valued at 1s. 4½d. per lb. under the Government scheme. The percentage addition was increased to 55 per cent. in 1917 and to 60 per cent. in 1918.

The following table gives a comparison of the prices for typical English wools before the war, during the first two years of the war, under control, and after the war :

	Lincoln hogs (pence per lb.)	Shropshire hogs (pence per lb.)
Average price 1908-14	9¾	12¾
June-July 1914	12	14½
Average 1915	17	21
June 1916	20	24
Control price 1916-17	16½	19½
" " 1917-18	18½	22
" " 1918-19	19½	22¾
Highest 1920	29	
Lowest 1920	14	

The question of valuation and payment presented greater difficulties, especially in England and Wales. Scottish farmers were satisfied with the proposal that they should continue as before to consign their wool to the Scottish wool brokers who were to value and pay for it on behalf of the Department, on the basis of a fixed schedule of prices for each quality, to be worked out and approved in consultation with the Scottish Advisory Com-

mittee. In practice the greater part of the valuation in Scotland was done by the Scottish Deputy Executive Officer and his assistant valuers.

In England, owing to the great variety of breeds, separate price lists had to be drawn up for each area, though a general price list for the whole country was issued for local guidance. Except in those areas where the auction system had prevailed, the English farmers asked that the wool should be bought on the farm. This demand could not be completely met. In order to arrive at a correct valuation it is necessary to sort or 'case' the fleeces into their various grades and breeds, and this operation can only be conveniently done, in the case of a large clip, in a proper wool warehouse. If the farmers insisted on the wool being bought on the farm the buyer could only guess at the valuation. The farmer feared, however, that if he sent his wool to the merchant's warehouse, it would get mixed up with other lots and he would not receive its full value.

This difficulty was met in two ways. First, it was agreed that an authorized merchant might buy small lots under fifty fleeces on his own responsibility (provided they were allocated to him) and pay what he regarded as the fair price on the spot. When he had collected a sufficient number of small lots in his warehouse, a Government valuer arranged to case and value them before taking them over on behalf of the Department. In this way the small farmer was assured prompt payment, though as the merchant had to take the risk of valuation by the Government expert it was only natural that he should try to protect himself by paying the farmer rather less than he would have got if he had sold direct to the Government by the normal system. In Wales, owing to the lighter weight of fleeces, the limit for 'small lots' was raised to 200. Secondly, in the case of larger clips, though the final valuation could only take place after 'casing' at an approved warehouse, it was arranged that the farmer might be present when the casing took place, and in order to meet the farmer's desire for prompt payment, arrangements were made for the payment of a preliminary sum on account before the wool left the farm.

It was further agreed that in order to meet the hardship of having to store wool for a longer period than usual, farmers

should receive interest at 5 per cent. on all wool still held by them on their farms after September 1. This did not, however, apply in cases where farmers had refused to send in their wool after receiving a request to do so from the authorized merchant to whom his clip had been allotted. But for this provision there would undoubtedly have been a greater outcry than there was at the delay in buying the wool. During the first year of wool purchase, when the whole system had to be worked out under great pressure, after the wool season had already begun, this delay was inevitable. In 1917 and 1918, however, when the scheme had got into thorough working order, the whole clip was collected in a shorter time than usual.

Wool Areas and Local Staff

Once the main outlines of the scheme had been fixed it was brought into operation with the least possible delay. During July District Executive Officers and their staff were appointed and local offices were opened; Local and Central Advisory Committees were set up; a census of wool was taken; authorized merchants were appointed as agents; and a beginning was made with the allocation of farmers' clips to individual buyers. By the beginning of August the machinery was practically complete and purchases from farmers had begun.

The decision to buy direct from farmers involved a large measure of administrative decentralization. An idea of the magnitude of the transaction may be gathered from the fact that the total clip of the British Isles amounted to over ninety million lb., in addition to thirty-eight million lb. of skin-wool obtained from the skins of slaughtered sheep. About sixty million lb. were obtained in England and Wales, twenty million lb. in Scotland, and ten million in Ireland. The number of farmers whose wool was bought in Great Britain was 136,000; and nearly two-thirds of the clips bought consisted of small lots of under fifty fleeces. In order to exercise the necessary supervision over the purchasing agents and to avoid reference of every difficulty to head-quarters, England and Wales were divided into thirteen areas (afterwards reduced to twelve), in each of which a District Executive Officer was appointed. Scotland and Ireland were separate areas with

Executive Officers at Edinburgh and Dublin. Particulars of the areas and the type of wool grown in each are given in Appendix 7.

The District Executive Officers were chosen from among the leading wool merchants. They were picked men, specially selected for their expert knowledge of wool and familiarity with local conditions. They were required to sever connexion with their private businesses during the period of control and were appointed whole-time Government servants.

Each District Executive Officer nominated for appointment a secretary, a cashier, one or two expert valuers to act as his technical assistants, and the necessary clerical staff for correspondence and records. It is worth noting that the whole of these administrative expenses, added to those of the Central Office in London, amounted to less than 1 per cent. of the total turnover during the three years of control. The total annual charge of £100,000 for administration, so far from being a heavy burden on the taxpayer as the critics sometimes suggested, was the means of saving at least £2,000,000 per annum in the cost of clothing the Army, even at the level of prices ruling during control. Compared with what would have been paid if no control had been established, the saving was very much greater but cannot of course be calculated.

Local and Central Advisory Committees

After the appointment of District Executive Officers and the setting up of local offices in the areas, the next task was to obtain the goodwill and co-operation of farmers and wool merchants. For this purpose a Local Advisory Committee was appointed in each area composed of equal numbers, usually three or four, of wool growers and wool buyers. These Committees performed a large amount of detailed work and were an essential part of the organization; many questions were satisfactorily settled by them which it would have been difficult, if not impossible, for the executive officials to have settled without them. Their special functions were to advise as to local customs and the best means of adapting or modifying the general scheme to meet them; to suggest and approve local price lists, based on the central price list but expanded to cover

local breeds ; to help in determining local ' casing ' standards, that is, a uniform grading system ; and, most important of all, to assist the District Executive Officer in allocating clips to the buyers in the area and to share with him part of the responsibility for deciding between rival claimants. By leaving much of this work of arbitration to representative Committees the Department avoided charges of partiality and unfairness. So long as the work was satisfactorily carried out it was a matter of indifference to the Government how it was divided up among the different firms. Far the simplest way of settling the matter was to leave the decision on such points to a Joint Committee of farmers and merchants. Another function of these Committees, which was also in the nature of a safety-valve and relieved the Government of a mass of troublesome questions, was to act in a quasi-judicial capacity and hear appeals from farmers who objected to the valuation put upon their wool.

In addition to the local Committees in the English and Welsh areas there were three Central Advisory Committees, one for England and Wales, one for Scotland, and one for Ireland. These Committees included manufacturers as well as merchants and farmers, and representatives of the three Boards of Agriculture were also members. They drew up price lists and determined the proper names and specific character of the many different breeds of sheep and qualities of wool ; they defined technical terms whose meaning varied locally ; they acted as a channel for ventilating grievances and heard appeals ; and in general expressed their approval or dissent on all proposals submitted to them by the Government. It was a great source of strength to the Department, especially in answering Parliamentary questions, if it could be said that a certain course of action had been deliberated upon and approved by a Committee representing all interests concerned. Indeed, it was remarkable how the democratic principle was embodied to a greater extent in these *ad hoc* representative Committees than in the House of Commons. The Committee took an interest in its subject, knew the technicalities of the trade, and when it had approved a certain course of action would take a certain pride in seeing it well carried out. Parliament, like the Press, rarely intervened except to express hostile and often

misinformed criticism. Sometimes a Member of Parliament would allow himself, unwittingly or not, to become the partisan of a narrow sectional view or even of a single discontented individual; whereas the Central Wool Advisory Committee, consisting of practical men who knew their subject and represented the different interests, was generally in a position to take a broad view and look at the whole problem in terms of the general interest.

Authorized Merchants

When dealings in British wool were stopped by the Army Council Order of June 8, 1916, correspondence at once began to pour in from the regular wool buyers all over the country asking for instructions and offering to act as Government agents. A form of application was sent to each firm requesting information on the following among other points:

1. Their warehouse capacity.
2. The number of 'sheets' (bags) owned by them.
3. The weight of wool purchased or handled by them in the three previous years.
4. The amount of wool they bought on their own account and the amount they bought as agents.
5. Whether they were able to case wool according to the recognized standards.
6. Whether they kept proper ledger accounts and had them audited annually; if so, by whom?
7. Trade, personal, and bankers' reference.

On the return of these forms, they were sorted out into different areas and each District Executive Officer was asked to make his recommendations upon them. The applicants were divided into groups. In the first group were placed firms who had only acted as agents for other merchants; these were not appointed Government agents but were allowed as before to work for their principal firm. A distinction was then drawn between those who had bought more than 50,000 lb. in one area and those who had bought less, and as a rule no firm was authorized in any area where their annual purchases had been less than 50,000 lb. Firms qualified to act as Government agents were divided into three classes.

Class I consisted of firms who were in the habit of buying wool on their own account but were not competent to 'case' wool. Class II were the medium-sized firms who could buy and 'case' wool. Class III were large firms who had premises large enough not only to 'case' their own purchases but also to receive uncased wool from Class I merchants and 'case' it for them. Authority to act as 'Authorized Merchants' in one of the above classes were issued from the War Office on the advice of the District Executive Officer under whose control the firm was to operate. The rates of remuneration were settled after negotiation with the British Wool Buyers Association and the Country Wool Buyers Association. The commissions were calculated at the time to be rather less than the normal rate of profit which a wool merchant would obtain in his private business. As Government agents they ran no financial risks and had a fixed share of the total business guaranteed to them.

The experience gained in the first year's purchase led to modifications in the second year. Delays and mistakes in valuation had occurred most frequently where wool had been handled by the small firms employed as Class I merchants. It was found too that the small firms could not carry out the Department's accounting and book-keeping instructions, not having sufficient skilled clerical assistance for the purpose. It was therefore decided to abolish this class and to arrange that firms who were unable to case wool should no longer be recognized as Government agents but should be affiliated as Authorized Collectors to Class II or Class III merchants, who would be responsible for supervising their operations and paying them their remuneration. This change relieved the District Executive Officers of a great deal of detailed supervision. In 1918 the same system was continued but a new scale of remuneration was introduced with percentage deductions in the case of firms handling over 750,000 lb. and corresponding increases for firms handling less than 125,000 lb. A further simplification of the scheme, which was introduced in 1917, restricted the number of areas in which a merchant might operate to those in which they actually had a warehouse. This broke across the 'usual channels of trade' and was only possible after experience had shown that too close an adherence

to the usual channels was inconvenient to the Government and unpopular with the farmers.

The total number of Authorized Wool Merchants employed as Government agents was 211 and about the same number were recognized as Authorized Collectors. The largest firms would handle more than two million lb. of wool; the smallest only 50,000 lb.

Allocation of Clips

One of the most important questions which the farmer was asked to answer on his census return was the name of the buyer of his last year's clip. This information was required in order to facilitate the allocation of clips among the authorized merchants; the plan being that each should buy as far as possible from the same farmers as before. This principle was adopted as much for the convenience of the Government and the farmer as for the satisfaction of the merchants' claims. Indeed, it was constantly emphasized that an authorized merchant had no vested right to buy any particular clip, or in fact to be employed at all, since private dealings had been prohibited and the War Office had a legal monopoly of domestic wool. For this reason it was made a condition of the appointment of agents that they should act under the instructions of the War Office and be ready to buy or not to buy in any particular district to suit the general convenience.

The chief reason for keeping to the same channels of collection as in 1915 was to reduce possible grounds for complaint on the part of the farmers. If all the wool buyers in the country had been called up for military service, put into uniform as officers of the Army Ordnance Department, and then sent to buy wool in districts where they were strangers, farmers would have resented such a system of Government purchase far more than the method actually adopted. An officer in uniform, however well he knew his business, would have been looked upon either as a tyrant with no sense of justice or as a simpleton who could easily be imposed upon; and the Press would have been full of stories of the incompetence of Government wool-buying officers. Many of the smaller wool merchants were in fact rather incompetent and often made mistakes in valuation; but farmers who had been content to sell

to them in the past could not complain very strongly against the Government because they now suffered injustice from the very same dealers.

Even so, the District Executive Officers and their Advisory Committees had no easy task to determine the exact allocation of clips. It was often difficult to reconcile the claims of the Bradford merchants and the smaller country merchants who had generally been in keen competition with one another in the past. Authorized merchants often demanded total amounts and particular clips which were incompatible with the evidence of the census returns and, vice versa, the previous buyer indicated on the census return would often be a manufacturer, a distant merchant or a small firm, which were not recognized as Authorized Merchants in that area. These marginal cases had to be adjusted by a process of give and take. The Advisory Committee would hear all the evidence and dispense rough and ready justice by rationing out the misfits to the most deserving claimants. Even manufacturers were sometimes allowed to buy under strict supervision.

On the whole this delicate work of adjustment was satisfactorily accomplished. Very few complaints of unfair treatment came to head-quarters. During the first year the chief concern of the London Office was to harmonize the views of the different areas in the question of 'foreign' buyers. For example, a difficulty arose over wools formerly consigned from the North of England to Scottish brokers. The English Committees alleged that the bulk of these wools after being sent to Scotland were bought by Bradford firms and returned to England. Accordingly they only allocated about half their previous clips to Scottish firms. This was resented by the Scottish Advisory Committee, who maintained that only 5 per cent. of this wool normally returned to England. As the Scottish case seemed a strong one, the London Office intervened and arranged that they should receive certain clips which had not already been allocated elsewhere and that the balance should be made up in skin wool.

The chief modification in the system of allocation introduced in 1917 and 1918 affected the operations of 'foreign buyers'. The system under which firms were allowed to receive clips from

distant areas where they had no warehouse, was the occasion of many complaints from farmers. It was therefore arranged that firms should only be authorized to buy in areas where they had warehouses, and that 'foreign' buyers who desired to preserve their previous connexions in any area must open a warehouse there, which would be under the control of the District Executive Officer for that area. Under this arrangement several large firms opened new warehouses in different parts of the country (an extra expense which justified among other things the slight increase in remuneration conceded in 1917 and 1918), whereas other firms concentrated in their home areas. Efforts were made by the allocation of surplus clips to compensate as far as possible for this readjustment; and in some areas a certain latitude was allowed. For example, firms close to a border were allowed to receive their usual clips from places fifteen miles from the border.

This reform, which further modified the usual channels of trade, promoted economy of transport and better supervision. It was a source of great improvement in the working of the scheme and removed the most serious causes of complaint which had arisen in 1916.

The machinery of purchase needs no long description. As soon as a clip had been allocated the second half of the census form was sent to the authorized merchant, the first half being kept to form the basis of the farmer's file in the District Office. This served as authority to take up the clip. At the same time a post card was sent to the farmer informing him of the firm appointed to buy his wool. On receipt of the census form, the authorized merchant dispatched his sheets to the farmer and either requested him to pack and deliver his wool himself or arranged to send a man to superintend the packing and make a preliminary valuation on the farm. This practice was followed in 1916 but was discontinued in 1917 owing to the shortage of skilled labour resulting from the calling up of men fit for military service. On receipt of the preliminary valuation certificate in London, the Finance Section of the War Office sent a draft for 75 per cent. of the amount indicated direct to the farmer. The balance was paid after the wool had been cased and the valuation had been checked by the District Executive Officer. The documentary and accounting arrange-

ments, which were devised by wool experts and accountants in consultation, were so complete and straightforward that payments could be made by the War Office within five or six days of the wool leaving the farmer's premises. Prompt payment was one of the points on which farmers laid most stress and which the scheme was specially designed to secure. Where delay occurred it was generally due to congestion in the wool merchants' warehouses and transport difficulties. A leading south country agriculturist said at a meeting of the Central Advisory Committee that the farmers in his neighbourhood had been amazed at the quickness with which they had been paid. Many complaints, however, were received in 1916 that farmers were unable to get their wool lifted as soon as they would have liked; this delay was unfortunately unavoidable owing to the time taken to get the scheme into operation after the wool season would normally have begun. Something was done to meet the hardship by paying interest at 5 per cent. as from September 1 on wool not bought by that date.

Valuation was based on an official schedule of standard grades. When the wool arrived in the warehouse it was unpacked and each fleece was examined and graded. A full record was kept of the number of each grade and inserted in the 'Casing Return', together with deductions for any imperfect fleeces such as 'cotts', i.e. matted or grey fleeces, and for dirty or greasy condition. The total was arrived at by weighing the fleeces in each grade separately and reckoning their value at the fixed price per lb. for that grade, and then making the necessary deductions. The 'casing return' was signed by the merchant or his employee who performed the grading—a highly skilled operation in which a great deal depended on the individual judgement of the valuer. Between twenty or thirty standard qualities were recognized and variations from these were left to the discretion of authorized merchants and District Executive Officers. That mistakes occurred is not surprising considering the number of agents employed and their varying skill in valuing.

When the scheme was first started it seemed as if valuation at fixed prices would present insuperable difficulties. It was feared that if matters were left to the individual judgement of wool

merchants, they might be tempted to favour the farmers by over-valuing. Since they were employed at a fixed commission per lb., they would have nothing to lose by over-valuation and might strengthen their connexion for the period after the war. But the general impression created in the War Office by the experience of State purchase was that, whether out of zeal on behalf of the Government or from sheer force of habit, the authorized wool merchant tended rather to under-value than to over-value the farmer's wool. Not infrequently the War Office had to check the natural instincts of its agents to drive a hard bargain. On the whole there were surprisingly few complaints about valuation; the farmers, not being experts in the wool trade, were content to trust the judgement of their regular buyers.

Complaints

Naturally such drastic interference as State purchase involved could not be carried through without causing dissatisfaction. In the autumn of 1916, when the scheme was first being launched, strong protests were raised in Parliament. Mr. Prothero, who shortly afterwards became Minister of Agriculture and had to defend, even if he did not altogether approve, the still more drastic measures of control imposed on farmers by Lord Rhondda, declared in the House of Commons on November 1916, 'You could not have had that purchase carried out in a way that would have given more dissatisfaction to the agricultural community.'

It was not in such sweeping generalizations that farmers' representatives on the three Central Advisory Committees and the thirteen Local Advisory Committees expressed themselves with regard to the scheme, the main lines of which they had themselves approved or at least helped to frame. In 1916 there was certainly one substantial ground for complaint; that was the delay in taking up the clip owing to the fact that the Government only decided at the eleventh hour to purchase the British wool clip. This meant that most farmers had to wait two or three months, while the scheme was being set in motion, before they could dispose of their wool. In 1917 and 1918 no delay occurred on this account, and the whole clip was lifted more promptly than in normal times. Other complaints as to price, valuation, and

trade customs did not in fact bulk large ; but troubles of this kind arose in the first year, especially in Wales and Devon, and the constant ventilation of Welsh and Devonian grievances in the House of Commons gave a wrong picture of the administration as a whole.

The War Office requisitioned private property belonging to 136,000 farmers, the greater number being paid direct by the Finance branch at Whitehall ; but of these during the 1916-17 season only 612 wrote to the Department. Most of the correspondents merely asked for information or for special concessions, such as to use their own wool or to have it spun for their own use ; only 139 made complaints. One explanation no doubt is that farmers as a class are not good letter-writers.¹ Another explanation may be that though they grumble farmers have a habit of resignation, and accepted the intervention of the War Office as they would a spell of bad weather. Most farmers would probably as soon have written to the Meteorological Office about the weather as write to the War Office about the price of wool. But whether the explanation be that they suffered in silence or that they had few grounds for complaint, the fact that less than a half per cent. of the wool-growers in the country wrote to the War Office is certainly surprising.

At the local offices complaints about valuation were referred to the Local Advisory Committees for arbitration. Out of 113 cases heard 100 were settled in favour of the War Office or withdrawn by the farmers, and in 13 the farmer was awarded part or all he asked. In almost every case the members of the Committee were unanimous ; the contingency feared by farmers, that the agricultural representatives voting in favour of the grower would be outvoted by the merchants, who would all vote against him, never occurred in actual practice.

Skin Wool

More than a quarter of the wool annually produced in the United Kingdom is obtained from the skins of sheep which

¹ Early in the war a letter was received in the War Office from a farmer, which began as follows :

' Dear Lord Kitchener,

Now that the above has commenced *re War.* . . . '

have been slaughtered for mutton. Skin wool is not bought from the farmer nor from the butcher ; it is obtained from the fellmonger, who buys the skins from the butcher in a hide and skin market and sells the pulled wool and the cured pelt. The machinery of collection under State purchase was comparatively simple, since it involved the control of a narrow 'bottle-neck'. All skin wool passed through the hands of fellmongers, of whom there were only a small number, less than a hundred for the whole of Great Britain. No restrictions were placed on the price of sheepskins, but fellmongers were informed of the price at which the pulled wool would be requisitioned from them. A register of recognized fellmongers was compiled, and each licensed fellmonger notified the amount of skin wool he had for sale from time to time. One of the official skin wool valuers, usually the District Executive Officer for the Area, would visit the fellmonger's premises and value his wool ; and the wool would then be invoiced, paid for, and held on War Office account until delivery orders were received. Samples of every lot so bought were sent to London and displayed in the skin wool sample room of the Tothill Street Office. Purchasers would select the description they preferred and buy according to sample.

The trading accounts for skin wool purchase in Great Britain show net profits of £183,358 for the ten months ending May 26, 1917, £639,939 for the ten months ending March 31, 1918, and £1,227,767 for the twelve months ending March 31, 1919. The administrative expenses for the three years, including travelling expenses and miscellaneous expenses, were only £2,278, £4,083, and £5,745. Though the turnover was less than half that of fleece-wool purchase, the profits realized during the second and third years were slightly greater. This was largely due to the fact that skin wool did not go into consumption as fast as fleece wool, and that a larger proportion, especially lambs' wool, was sold at high prices for the manufacture of specialities.

Manx Wool

The original Order prohibiting dealings in the wool of the 1916 clip grown in Great Britain and Ireland did not apply to wool grown in the Isle of Man. Consequently English and Scottish merchants were free to buy up Manx wool in com-

petition with the local mills, which had hitherto been accustomed to obtain the bulk of the lowland wool grown in the island and to work it up into yarn and flannel for local requirements. During the war local requirements were increased by the needs of prisoners of war and interned civilians lodged on the island. Accordingly, on June 22, 1916, by agreement with the Manx Government the Order prohibiting dealings in wool was extended to the Isle of Man. Two Government Wool Depots were established, one at Douglas and the other at Ramsay, and were placed under the management of two Manx Agricultural Inspectors. Twelve firms, of whom six were local mills, were authorized to collect wool on behalf of the Government, buying only from the farmers from whom they bought in 1915 and selling only to the Government Treasurer. Farmers might also, if they preferred, consign their wool direct to a Government Depot. All wool had to be delivered by the farmers of the island on or before October 30, 1916. A list of prices for the various descriptions was drawn up and published, and a fixed commission of $\frac{1}{4}d.$ per lb. was allowed to the collecting agents. Valuation on behalf of the Government was entrusted to an expert taken from the leading firm of local buyers and appointed a Government servant at an annual salary. Payment was made by the Government Treasurer after inspection and valuation at a Government Depot by the official valuer. Local mills which desired to buy wool for manufacturing purposes were able to obtain it from the Manx Government on payment of the fixed issue prices corresponding to those ruling on the mainland.

Though the amounts were relatively small the trading accounts for Manx Wool Purchase are shown separately in the official report on Raw Materials. The totals collected each year were 236,873 lb. in 1916, 264,444 lb. in 1917, and 279,566 lb. in 1918. Purchases were financed by advances from the War Office and not by the Manx Treasury. Unlike the Dominion Governments, the Isle of Man Government did not stipulate for any share in the profits, which as the accounts show were fairly substantial in 1917 and 1918. On a total expenditure of £50,090 during the three years, the aggregate net profits amounted to £8,383, after paying interest on the capital employed.¹

¹ Cmd. 788, pp. 32, 39, and 48.

Free Carriage

A point worth noting is the arrangement made for free carriage on the railways. Since all wool became the property of the Government before it was put on rail, it was found possible to arrange with the railways that they should carry wool as Government stores free of charge, under the agreement made with the Railway Companies when the railways were taken over in 1914. The railways accepted consignment notes signed by the District Executive Officers as authorization for free carriage. The total amount of freight charges represented by these consignment notes was roughly estimated once a year and the lump sum so arrived at was debited to the War Department and the Railway account kept by the Treasury received a corresponding credit. This system saved an immense amount of time and money not only to the officials and agents of the Department but also to the Railway Companies. In normal times the freight payable has to be calculated for every consignment of wool. An invoice for the freight has to be made out which has to be checked by the wool merchant (a matter often involving lengthy dispute), and steps have to be taken by both parties to see that payment is rendered and received promptly. The saving of clerical labour to all concerned, at a time when the claims of military service were denuding both the Railway Companies' and the wool merchants' clerical staff, was not the least important economy rendered possible by centralized purchase.

Distribution and Sale

The machinery for distributing British wool worked more smoothly than many had anticipated. The magnitude of the selling organization created constituted a record in the wool trade and few thought that so vast a business could be conducted without serious delays and congestion. But in practice the business of disposing of 120,000,000 lb. in large consignments of 100,000 lb. lots and over proved no more difficult than the normal scale of business conducted by a large firm involving sales of 1,200,000 lb. in lots of five to ten thousand lb. Concentration and large scale operations meant an economy of

effort and especially economy of clerical labour on the part of buyer and seller alike. But more important than this for the War Office was the fact that centralization of purchase and sale made it possible to regulate the flow of raw material into the channels required and to know at a glance the whole position with regard to purchases, sales, reserves, and deliveries due. All the dark corners were illuminated and nothing was left to chance. From the point of view of the manufacturer the chief grievance was that it was practically impossible for makers of luxury articles to get British wool which was at all suitable for military purposes ; but army contractors derived considerable benefit from the regularity and simplicity with which they could obtain their supplies. They were able to order their requirements in bulk from a single source, and if the particular wool which they preferred was difficult to obtain they could count on the possible alternatives being offered to them without having to waste time in negotiating with hundreds of different sellers.

In fixing the price of British wool at 35 per cent. above the 1914 level the War Office had taken its stand on the principle of cost of production and a fair profit. This meant that farmers were receiving considerably less than the full market value, taking into account the level of prices ruling at the time for colonial wools of similar quality. The question then arose at what price the Government should sell. Should it sell at cost price plus expenses of collection and transport ? Should it fix an arbitrary level of prices somewhere between the cost price and the open market value ? Or should it sell at the highest price obtainable in the open market and thus realize a large profit ?

The third alternative was ruled out by the decision to control distribution ; if wool had been put up for auction and sold to the highest bidder there would have been no means of regulating the use to which it was put. It was necessary, therefore, to issue the wool at fixed prices. The first course was only possible in the case of wool supplied to army contractors for the manufacture of goods for military purposes. There would have been no justification for supplying wool for the civil trade at less than its market value in the absence of any means for controlling the price of the finished goods. This would merely have meant making

a present to the manufacturer at the expense of the farmer. A middle course was therefore adopted. Wool was issued for civilian consumption at fixed prices which approximated to the current market level and were altered at intervals. At the outset wool was issued for Government contracts below market price at a level approximating to cost, but in 1917 this 'military issue' price was abolished and it was found convenient to have only one level of selling prices for all wool both British and Colonial. Australian and New Zealand wool cost considerably more than home wool owing to the heavy expenses of transport and insurance. Chiefly owing to the increased amount necessary to provide against submarine losses, the fixed issue prices were advanced during 1918, and large profits were therefore realized on the sale of British wool.

On March 31, 1919, the accumulated profits on home wool purchase amounted to £6,833,196, and on total sales for the three years amounting to £33,686,169 the administration expenses were less than 1 per cent.¹ From a commercial standpoint British wool purchase was therefore a successful transaction, but since the object of the Government was not to make profits this criterion is not of much value. The real advantages to the State were first, that by monopolizing purchase and sale prices were prevented from rising as high as they would otherwise have done; secondly, that the price of woollen goods required for military purposes was no longer dependent on a speculative market, but was brought into close relation with the actual cost of production from the raw wool up to the finished stages; and lastly, that the Government was able to obtain a first call on domestic wool supplies for its own requirements and regulate the distribution of the balance to the best advantage in the general interest.

¹ Trading Accounts for Home Wool Purchase are given in Cmd. 788, pp. 28-52.

CHAPTER XII

THE WOOLLEN AND WORSTED INDUSTRIES

Topmaking — Woolcombing on commission — Topmakers as Government agents — Conversion costing — Economies effected — New specifications and use of rags and waste — Allocation of contracts — Decentralization — Restrictions on civil trade in 1917 — Central Wool Advisory Committee — Priority scheme — Reduction of hours — Discontent in the industry — Appointment of Board of Control — Partnership between Government, Employers, and Labour — Standard clothing scheme — Application of costings to civilian products — Working of the scheme — Abandonment after the war.

THE first process of manufacture in the worsted industry is the making of tops. In the woollen industry wool is merely carded, but to make worsted yarn the wool has to be combed into tops in order to remove the short fibres and impart the necessary strength. Worsted spinners buy their tops from topmakers, who get the combing done for them on commission by woolcombers.

Gradually this whole business of woolcombing and topmaking came under direct Government control. Cross-bred tops were required in large quantities for spinning the worsted yarn used in the manufacture of khaki cloth and army hosiery. In order to ensure priority for these requirements, it was necessary for the War Office to arrange for direct allocation of tops to army contractors. It was therefore decided that British wool suitable for army purposes should be combed into tops on Government account and allotted at fixed prices to contractors. Arrangements were made with the large topmakers to act as agents for the Government in carrying out this plan. The allocation and sale of the tops was centralized in the Government Wool Office at Bradford. Early in 1917 the same system was extended to the combing of colonial wool into tops for military purposes. As a consequence the topmakers lost another large slice of their private business. In May 1917 the final stage was reached. At that time the submarine campaign was at its height; the prospect of adequate shipments from the Dominions was very uncertain; and the census of stocks had revealed a dangerously low reserve of wool in the United Kingdom. It was therefore decided as a measure of precaution

that all wool in private hands including topmakers' stocks should be taken over by the Government. At the same time it was decided to fix the selling price of all raw wool and tops both for civilian and military purposes. As a corollary it was necessary to insist that all tops should be combed on commission for the Government. The whole of the topmakers' private business of buying wool and selling tops thus came to an end. From that time onwards topmakers became Government agents operating for a fixed commission like British wool merchants and the London wool-selling brokers.

As soon as the Government was able to supply raw material at a fixed price it became possible to apply the costings system more thoroughly, and to regulate the prices of yarn, cloth, hosiery, and blankets for military purposes by reference to conversion costs. In the spring of 1916 this had been impossible because the cost of the raw material was unstable; but even with fixed prices for raw material the fixing of conversion costs involved great technical difficulties owing to the number of variable factors, such as wastage of material in the process of manufacture. Not only accountants, but the foremost technical experts in the industry were employed in investigating costs and standardizing specifications.

In the case of yarn required for military purposes the War Office was now able to negotiate direct with the spinner and to requisition such part of their output as might be required. Tops were issued to spinners at fixed prices and spun by them into yarn at rates based on conversion costs. The yarn was then delivered on Government account to worsted cloth or hosiery manufacturers. These in their turn were required to devote a certain proportion of their output to army goods and received a price based on the ascertained cost of conversion. The economies rendered possible by the application of the costings system are illustrated by the fact that early in 1917 the cost of khaki cloth was reduced from 8*s.* 3*d.* per yard to 7*s.* per yard, which represented a saving in this one item of £1,000,000 per annum.

The experts recruited from the various branches of the trade, who worked as temporary officials in the War Department Cloth Office at Bradford, not only investigated costs but devoted their

special knowledge and experience to the introduction of new processes and new specifications in the manufacture of army cloth. By the skilful use of wool-waste, noils, and rags important economies were effected both in the cost of cloth and in the consumption of new wool. The salvage of old uniforms provided 5,000 tons of rags annually; remnants of cloth issued to shirt makers and clothiers were recovered and converted into shoddy; and noils and wool-waste were requisitioned from woolcombers and spinners. The secret of blending these materials with new wool so as to produce a strong and durable army cloth was imparted to army contractors by experts who had formerly been their competitors. By this means great-coat cloth, for example, which had formerly cost 10*s.* 6*d.* a yard, was produced at 9*s.* a yard by a blending process which reduced the amount of new wool used without interfering with the quality of the cloth. This pooling of technical knowledge and experience was one of the most important results of control in the woollen industry, as in other trades.

A necessary corollary to the application of the costings system was an organized system of allocating army contracts. Government contracts were now less profitable than the civil and export trade. Arrangements had, therefore, to be made that all firms with suitable machinery undertook their fair share of the work. For this purpose twelve advisory committees on the allocation of contracts were set up in the principal manufacturing centres of the woollen and worsted industries together with four committees in the chief centres of the hosiery industry. The chairman of the first twelve constituted a Central Advisory Committee on the Allocation of Contracts. The War Office allotted a total figure to each committee and invited their recommendations as to the orders to be allotted to each manufacturer. This system introduced a useful element of self-government in the administration of control and relieved the department of a large amount of difficult negotiations and decisions.

The introduction of the costings system and the distribution of raw materials at fixed prices necessitated a large amount of decentralization. An office was set up in Bradford divided into departments dealing with raw wool, tops, yarn, and cloth, and a number of experts in the trade were induced to leave their

private business and serve as temporary officials. Similar offices on a smaller scale were set up in Leicester, Manchester, Edinburgh, and Dublin.

As the shipping situation became more serious the Government was compelled to interfere to an increasing extent with the civil trade. During the early months of 1917 the submarine menace and the increasing diversion of ships to the North Atlantic route caused serious concern as to the future of wool supplies. The War Office was compelled to adopt a policy of extreme caution in order to conserve sufficient stocks of raw material for the use of the British and Allied armies, and the increasing stringency with which civil trade had to be curtailed led to important new developments in the relations of the Government with the industry. In April 1917 the Central Wool Advisory Committee, which included representatives of every section of the trade, from the wool importer to the export cloth merchant, and also trade union leaders, decided that it was necessary to build up a substantial reserve of wool. In order to achieve this, and at the same time to maintain the export trade, it was decided to ration manufacturers by the application of a priority scheme. On April 14, an Order was issued requiring manufacturers to give priority to orders according to their classification as Class A, Class B, or Class C. Class A included all orders for the British and Allied Governments; Class B, orders for the export trade and other orders certified to be of national importance; Class C, orders for civilian consumption at home. On May 24 a further Order was issued on the recommendation of the Central Advisory Committee providing for a reduction of the weekly hours of work by 20 per cent. from $55\frac{1}{2}$ to 45. In addition six District Priority Committees with a Central Committee in London were appointed to ration spinners and manufacturers and to determine the rate at which wool and tops already in their possession might be put into consumption. When the spinners received from the District Priority Committees their first authorization for civilian production, many of them found that in one month they had consumed more than they were entitled to use for three months, and that the amount authorized was insufficient to enable the machinery to be run even for 45 hours per week. Towards the

end of July Mr. H. W. Forster, M.P., Financial Secretary to the War Office, addressed a large meeting of traders and manufacturers at Bradford giving confidential information of the statistics of stocks on hand and of probable future imports; but this did little to appease the discontent which the policy of restriction had aroused. The accuracy of the figures was challenged, and a demand was made that the control of the worsted industry should be taken out of the hands of the War Office and transferred to a board of business men similar to the Control Board set up in the cotton industry. This demand could not be met in full; but in September 1917 a Board of Control of the woollen and worsted industries was created to exercise certain limited functions.

The Board consisted of eleven War Office representatives, eleven representatives of employers, and eleven representatives of labour, the Chairman being Sir Charles Sykes, K.B.E., Director of Wool Textile Production at Bradford. Its chief functions were to take over the work of the existing priority committees and to allocate to districts, trades, groups, and firms the quantity of wool, tops, and yarns available for civilian trade. The War Office still reserved the right to decide the amount of raw wool to be maintained as a reserve. The Department of Wool Textile Production was responsible for placing contracts for Government supplies; and the Raw Materials Department continued to be responsible for the handling of raw wool up to and including the making of tops. Fortunately for the success of the new scheme it soon became possible to relax the restrictions previously imposed. From September onwards the weekly hours of work were increased from 45 to 50. The new arrangement gave general satisfaction. The War Office was relieved of the difficult task of rationing manufacturers for civilian consumption, and the new experiment of vesting control over civilian trade in a body based on a partnership between the Government, the employers and Labour was abundantly justified.

Standard Clothing

The severe restrictions placed on production for civilian consumption caused a sharp rise in the price of ordinary woollen and worsted goods, and very large profits were made by manu-

facturers and merchants who had stocks to sell. The representatives of Labour on the Board of Control protested against this profiteering, and urged that since the whole of the raw material was purchased with public funds, it was the duty of the State to control the price of the finished products in the interest of the general body of consumers. This demand was met by the introduction of the Standard Clothing Scheme. The plan was to apply the system of costing and price-fixing to the manufacture of goods for civilian consumption in the same way as it was already applied to goods for military purposes. One of the first tasks of the new Board of Control was to undertake the organization of this scheme. The types of cloth and garments produced were as follows :

Hosiery including socks.

Blankets.

Flannel.

Suits, men's and boys' in woollen and worsted.

Women's ready-made skirts.

Standard specifications were adopted for each type of article to be produced, and arrangements were made for giving each item a distinctive mark or selvedge, the use of which was prohibited for other purposes. Wool and tops were issued to manufacturers by the War Office at fixed prices, and conversion costs were fixed for each stage of production by agreement between the officials of the Control Board and the branch of the industry concerned. The retail price of the goods was fixed so as to yield a reasonable margin to wholesale and retail traders, and the retailer was not allowed to sell at more than the standard price so fixed. Committees representing each branch of the industry concerned were set up to organize production and distribution in their respective spheres. Joint committees were formed to arrange the distribution of the products from firms in one branch of the industry to firms operating at the next stage. For example, a joint committee of cloth manufacturers and clothiers arranged the distribution of cloth in the wholesale clothing industry ; and a joint committee of clothiers and retailers arranged the distribution of finished garments among retail traders. No public funds were employed in the administration of the scheme. The raw material was purchased by the spinner or manufacturer from the State ; and in turn he sold his product to the producer or

distributor at the next stage in order of sequence. A small sum per garment or yard of cloth was levied to provide funds for the office expenses of the Standard Clothing Section of the Department of Wool Textile Production. There was no official inspection of the goods produced, but clothiers and retailers had to satisfy themselves that the goods delivered were up to standard. Export of standard goods was prohibited, and rejected goods were disposed of at the discretion of the Department of Wool Textiles. Certain cloth, which was not up to the standard quality, was at one time sold abroad on Government account at a good profit.

To the limited extent to which it was carried out, the scheme was successful. Flannel, hosiery, and blankets were placed on the market in considerable quantities, and met with a ready demand since no other goods could compete with them in price. The quantity of suits distributed was small; they only became available after the Armistice, when large stocks of standard suits were requisitioned by the War Office for the use of discharged soldiers. The chief weakness of the scheme was that it was worked on a voluntary basis. No orders were made requiring manufacturers or distributors to produce or handle standard clothing, with the result that the burden of supplying the civil trade at controlled prices was not shared evenly throughout the industry, in the same manner as army contracts. Though the scheme was worked by the trade through trade channels it was naturally not popular, either with manufacturers or producers. After the war it was soon dropped, and though prices continued to rise for nearly two years, the efforts of the Labour representatives on the Wool Council to have it re-established were unsuccessful. In order to make it a success, and to prevent public-spirited manufacturers being left at a disadvantage compared with their competitors, it would have been necessary to use compulsory powers; but though the Government passed an Act against profiteering in 1919, they refused to obtain the necessary powers to enforce the standard clothing scheme. Later in the year, a limited number of standard garments were again placed on the market by voluntary arrangement, but by the time they reached the retailer a severe slump in prices had taken place and the necessity for the scheme had disappeared.

PART III

MEAT AND FATS

CHAPTER XIII

THE MEAT TRADE AND WAR PROBLEMS

Meat shortage during the war — Popular demand for Government control, May 1917 — Meat (Sales) Order, 1917 — Description of meat trade — How the retail butcher obtains his supplies — Farmers' methods of sale — Distinction between live weight and dead weight — Preference of farmer for live weight — Links in the chain between the farmer and the butcher — Regulation of supply and demand under normal conditions — The American Meat Combine and the price of cattle — Automatic regulation of distribution — The meat problem during the war — Original scheme of control — Objects aimed at — Municipal control of retail distribution — Proposals for price reduction — Reserve of meat more economical than reserve of cattle.

EVERY belligerent country had to face serious difficulties in providing a sufficient supply of meat at reasonable prices to feed the Army and the civilian population. Great Britain, unlike Continental countries, had been accustomed to rely to a large extent upon frozen meat imported from Australia, New Zealand, and South America, the bulk of which was sold in the towns to the industrial population. France, Italy, and Central European countries were normally able to support themselves on their own herds.

Apart from the general effects of currency inflation, meat prices throughout Europe were subject to influences specially affecting agriculture. The calling up of farm hands and the lack of imported feeding stuffs were the principal causes of the falling off in the herds, but the general impoverishment of the soil owing to the shortage of artificial fertilizers, the necessity of conserving grain and leguminous products for human consumption, and the heavy demands of the Army for oats, hay, and other feeding stuffs for horses all contributed to accentuate the shortage. In Great Britain these factors operated to a certain extent, especially towards the end of the war, but the principal causes for meat

shortage were the increased consumption due to the liberal scale of Army rations, and, from 1917 onwards, the growing shrinkage in the amount of the refrigerated shipping space available. As in the case of other commodities, a small deficiency in supply was sufficient to cause a disproportionate increase in price, especially in view of the fact that the purchasing power of the population, measured in money, was rapidly increasing owing to currency inflation.

The shortage and the rise in prices first began to grow acute in the early part of 1917. It is true that Lord Devonport was able to state in the House of Lords on May 8 that the herds in the country were 'as large as, if not larger, than at any previous period'. But the needs of the Army and the decrease in imported supplies were already beginning to cause anxiety. On May 17 Captain Bathurst announced in the House of Commons that the question of controlling the supplies and price of meat was under the consideration of the Food Controller in consultation with the Board of Agriculture.

Meanwhile prices continued to rise and the daily press gave evidence of increasing resentment on the part of the public. Energetic action to check the extortionate demands of butchers and farmers was demanded. As a result of the examination conducted by the Government, it was concluded that prices had been unduly forced up by speculation and 'inter-trading', that is, the passing of live stock and meat through several hands by a process of buying to resell. Accordingly, on May 31 the Food Controller issued an Order entitled the Meat (Sales) Order, 1917, which was designed to prevent inter-trading by making it illegal for any person who had bought fat cattle to sell them except to a person who gave a written undertaking that he was buying them for slaughter within fourteen days. The Order also prohibited the sale of dead meat except to a retail butcher or to a person buying for consumption, and prescribed the maximum margin of profit which the wholesale salesman might charge on the sale of carcasses and joints.

This Order was recognized to be only a preliminary step, and though it checked the multiplication of speculative dealing—a phenomenon which accompanies every period of rising prices—

it had no effect in bringing prices down. So long as the consumers' demand remained fairly constant, only an actual increase in supply could have had that effect under the conditions of free trading then ruling in the markets. But an increase in supply was out of the question. The chief reason for the rise in prices was that, whereas in normal times 40 per cent. of the meat consumed in the country was imported, during the war these overseas supplies were diverted for the use of the Allied armies and navies, and less than 10 per cent. of the civilian meat supplies were obtainable from foreign sources. The abnormal increase in prices was thus due to a falling off in the usual flow of supplies from abroad and was not paralleled by any corresponding increase in the cost of production of home-killed meat. Farmers, in fact, frankly admitted that the level of prices which had now been reached, through no fault of their own but solely owing to the keen competition of buyers, could not be defended, and, if the abolition of profiteering was to be more than a phrase, could not reasonably be expected to continue.

A more thorough-going scheme of control was seen to be necessary, but the more the question was explored the more insuperable appeared the difficulties. In order that these difficulties may be appreciated a brief description must be given of the way in which the meat trade of the country normally functions. There is no difficulty in recognizing the ultimate producer on the farm and the immediate supplier in the butcher's shop. It is the channels of trade through which the commodity passes from the one to the other that have to be considered. There are two main divisions, according to whether the butcher is supplying meat killed at home or frozen meat imported from abroad. The home trade presents a number of alternative possibilities. In rural areas the butcher may have his own farm and his own slaughter-house. He may buy 'store' cattle, and make an arrangement with a farmer to fatten them for slaughter on his account for a commission of so much per head. But as a rule the country butcher will either buy fat beasts direct from the farmer by private treaty from week to week, or he will attend at the nearest fair or auction, where he will buy in open competition with neighbouring butchers, with dealers, and with wholesale butchers

from the towns. Two other possibilities are open : he may sometimes buy from a cattle-dealer who brings him beasts for slaughter from a farm or market some way off, or he may buy dead meat from a carcass butcher or a wholesale salesman in a neighbouring town. As a rule the country butcher has his own slaughter-house, while the butcher in the small town will have his beasts killed for him in a municipal or private slaughter-house. In the large towns the retail butchers have no slaughter-houses and rarely buy live animals. They are dependent for their supplies on the meat market, where wholesale butchers and salesmen, selling for farmers on commission, sell carcasses, sides, or joints. Lastly, the town butcher is accustomed to buy frozen meat either in the dead meat market, as at Smithfield in London, or direct from a large importing firm or an agency of one of the American or Colonial freezing works.

The farmer's methods of disposing of his stock vary, as in the sale of domestic wool, in different parts of the country. Four alternatives are open : to sell by private treaty on the farm, either direct to the butcher or to a live-stock dealer ; to send the animals alive to a neighbouring market, where they will be put up to auction before a crowd of buyers ; to have the beasts slaughtered in a local slaughter-house and then to send the carcasses for sale 'on consignment' by a wholesale meat salesman in Smithfield or some other centre ; or lastly, to send the beasts alive to a wholesale butcher or carcass butcher, who will slaughter them and remit the proceeds on the basis of so much per pound of dead meat together with the market price of the hide or skin and the 'offal'. The first two are methods of sale by 'live weight' ; the last two are sales on the 'dead weight' basis.

This distinction is important. When a butcher buys a live beast for slaughter, he has no means of calculating its real value. He knows the market price of meat, the price he is likely to get for the hide and skin, and the price per pound of bone and offal. By weighing and feeling the animal he can make a rough guess at the amount of meat on it, and a still rougher guess at the weight and quality of the hide. In the case of unshorn sheep he will be hard put to it even to guess at the value he is likely to realize for the wool. The buyer on the live-weight

basis is therefore very much in the dark as to the price he can afford to pay, if he is to protect himself against loss, and the seller can never be sure that he is getting full value for his product. On the dead-weight basis, however, the farmer retains the property in the animal up to the point where it has been slaughtered, flayed, and prepared for sale. He is credited by the buyer with the wholesale market value of the actual yield of dead meat, of the hide, skin, or wool, and of the head, tail, feet, and other parts. He can thus be sure that he is getting full value, providing he trusts the honesty of the wholesale butcher, to whom he consigns his property. The latter is clearly the fairer and more scientific method of sale, but it presupposes a standard of mutual confidence between farmer and butcher which unfortunately does not generally exist. The farmer is suspicious of the dead-weight system; he does not like to part with his property before he sees the cash; and he is afraid that if he sends his beasts a long distance off they may go astray or be mixed up. He has no confidence that the slaughterer will be able to identify the meat, hides, wool, and offal produced from his animals, or that he will take the trouble to account to him for the proceeds with sufficient accuracy. He therefore prefers as a rule, even at the risk of receiving less money, to sell his beasts outright 'on the hoof', rather than to sell on consignment on the dead-weight basis. The two systems and the farmer's preference for the more speculative of the two are closely parallel to those already noted in the case of home-produced wool, where the English farmer prefers to sell his wool ungraded in his barn rather than send it to be 'cased' and paid for on the basis of the actual value of the fleeces yielded.

It will be useful at this stage to summarize the functions of the various links in the chain. This will also provide a glossary of some of the technical terms used in subsequent descriptions of the working of control.

Breeder. A farmer who rears cattle and sheep for sale as 'stores', that is, immature heifers or bullocks not yet ready for slaughter.

Grazier. A farmer who buys store cattle for fattening. Stores are often sent long distances to the best fattening districts. A large number of stores are shipped from Ireland and sold by

dealers to graziers in Scotland and East Anglia, where the finest prime animals are produced.

Live-Stock Dealer. The dealer buys and sells store cattle, but also buys fat cattle on the farms, at fairs, and at auction marts, and sends them to a commission salesman or to a carcass butcher.

Live-Stock Auctioneer. There are about eight hundred live-stock markets in England and Wales presided over by local auctioneers, who usually have an extensive business in addition to the auctioning of live stock. They belong to the Auctioneers' Institute, an important body which played a large part in the Army Cattle Purchase Scheme and in the Ministry of Food's Meat Control Scheme.

Slaughter-houses. There are about 14,000 slaughter-houses in Great Britain, the greater number being privately owned and on a small scale. Large up-to-date slaughter-houses are found in many large towns, conducted by the municipalities or by joint-stock companies. It has long been recognized that the methods and equipment of British slaughter-houses are behind the practice of many foreign countries. The absence of a sufficient number of large central slaughter-houses proved an obstacle to the control scheme and especially to the general introduction of the system of selling on dead weight basis.

Carcass butcher. A butcher who buys live animals and sells meat wholesale to retail butchers. He may at the same time sell in his own retail shops.

Commission salesman. In Smithfield and other wholesale meat markets, which exist in Glasgow, Birmingham, Cardiff, Liverpool, Newcastle, and a few other large towns, there are brokers and jobbers, as on the Stock Exchange and Produce Exchanges. The former are called commission salesmen. They receive carcasses on consignment from farmers and dealers, and act as their agents in disposing of them wholesale. They also cut up carcasses and sell them to retail butchers in sides and joints.

Meat importers. The large refrigerated meat companies have freezing works in New Zealand, Australia, and South America, where they buy direct from the farmers. They either import into this country direct or employ their own agents. They sell their frozen or chilled meat either at their own stalls in the wholesale

markets or direct to retail butchers. In recent years the large American meat companies have established a strong position in the English market and supply the bulk of the frozen beef which comes from South America. The Colonial meat companies supply frozen mutton rather than beef.

Retail butchers. Of these there are three classes : those who buy only live animals and either slaughter them themselves or have them killed in a public slaughter-house; those who are completely dependent on the wholesale meat market and never buy live animals; and those who make use of both sources of supply. The last two classes, which are confined for the most part to large towns and their neighbourhood, also buy frozen meat. The first class is found principally in country districts, where live stock can be readily obtained in the neighbourhood. Altogether there are about 50,000 retail butchers in Great Britain. This gives an average of about one butcher for every 800 of the population or 200 customers. With such a small average clientèle, it is not surprising that before the war competition was very keen and that butchers had to work hard for a living. Co-operative Societies and multiple shops were taking away a growing part of the trade, though both were handicapped by the difficulty of securing competent and reliable managers, in a business where checks on inaccurate accounting are difficult to impose.

In normal times supply and demand are regulated by price fluctuations in the wholesale meat markets in London and other large towns. Changes in the price of dead meat rule the price of live cattle at the auction markets, which in turn determines the price which the butcher will pay when he buys direct from the farmer. The price of fat cattle naturally governs the value of stores. Before the war the level of prices in the wholesale meat market was largely influenced by the selling policy of the refrigerated meat companies. Of these the American companies selling beef from South America showed a tendency to follow a common policy rather than to compete. It was alleged, probably with good reason, that the American meat combine could determine the price of beef and therefore indirectly of live cattle and stores. On the whole perhaps the farmer had more reason to complain that they kept prices low

than the consumer had to resent their reluctance to compete. Feeding beasts for slaughter was not a very paying proposition, and was chiefly valuable to the farmer for the manure which he obtained as a by-product. There have been few fortunes made in the meat business either by farmers or butchers, nor was it a congenial hunting ground for the speculator. Combination and large-scale operations were the best way to make money ; but in the home trade, as there was no necessity for large freezing works and packing plants, big aggregations of capital were unknown, and cut-throat competition rather than combination suited better the traditional individualism of the trade.

Apart, therefore, from the influence of the American meat companies, which was on the whole a steadying influence on the market, the conditions were favourable for the free play of supply and demand. Distribution was automatically regulated by small price fluctuations, and local deficiencies and surpluses righted themselves by the opportunity they created for every enterprising dealer to make a profit by attending to them. The meat trade ran itself. Thousands of eyes were watching the daily price fluctuations ; but no one man ever caught a bird's-eye picture of the trade as a whole, or had any responsibility for co-ordinating the ceaseless activities of the swarm of operators and seeing that the whole machinery functioned smoothly to attain any concerted end.

The problem which the Food Controller had to face, and which the experts of the Ministry of Food and the Board of Agriculture were examining in May and June 1917, was to devise some method by which this swarm of profit-seeking individuals could be made to function as a single organic whole. If prices were fixed and the free play of private initiative was destroyed, was it possible to construct any machinery of distribution which could take the place of the operation of economic laws ? Nothing less than this was involved in the simple demand, which the public and press kept urging upon the Government, that they should fix prices and take control of the trade.

‘ The meat problem,’ said Mr. Clynes in a review of the activities of the Ministry of Food given in the House of Commons on June 6, 1918, ‘ the meat problem in a nut-shell is this : we had to

arrange that the required number of beasts and sheep should be killed in 14,000 slaughter-houses and delivered, together with their proportion of frozen meat, to 52,000 retailers' shops through 2,000 Local Food Committee areas, and that must be done at the right moment, or as near that as possible, in order to supply the demands of 40,000,000 consumers.' What constituted the chief difficulty was that all this had to be done with fixed prices and no profiteering. Distribution would take care of itself if left to economic forces. To do it in any other way meant drastic reorganization of the trade, and that had to be done without interfering for a single day with the supply of meat to the butchers' shops. Lord Rhondda, in a speech on the meat problem, once likened his task to the rebuilding of a bridge without interfering with the traffic.

It was here that the experience already gained by Lord Rhondda and his assistants at the War Office in connexion with wool and hides proved of great value. The first detailed suggestions for a scheme of control were drawn up at the War Office on June 1, 1917, and as they formed the basis of Lord Rhondda's subsequent policy and were ultimately put into practice substantially unaltered, the memorandum containing them is given in full in Appendix 8.

As under the Wool Purchase Scheme it was proposed that Local Executive Officers should be appointed to supervise the sending of cattle to market, where they would be distributed at fixed prices to butchers and salesmen by the auctioneer or market superintendent. A Central Office in London would fix the quota to be supplied from one area to another and prescribe the proper channels of distribution. All dealers, salesmen, and butchers would be licensed, and would be permitted to operate only within the limits laid down. The experience gained in wool purchase and the control of domestic hides proved that 'the most practicable method of State regulation is to make use wherever possible of the existing trade channels of supply and distribution, and to standardize these channels in such a way that every farmer and authorized dealer knows at once exactly where he is to send his produce and from whom he is to purchase it. Every trader is then recognized as performing a service of national importance

with the knowledge that his authority to deal may be cancelled if he fails to carry out the instructions or evades the regulations imposed.' The essence of the scheme was to replace free choice and private initiative by a system of fixed routines and prescribed time-tables, much as if one should attempt to regulate the movement of motor traffic on the roads by applying to them the principles of railway management.

On the side of retail distribution the original scheme contemplated a more important part being played by Municipal and other Local Authorities than proved feasible in practice. They were to have power to open municipal butcher shops, to require private butchers to amalgamate their businesses, to take over and control the business of slaughtering, and to regulate retail prices. In practice it was found that the Local Authorities were so burdened with the heavy responsibilities arising out of the National Rationing Scheme and other war measures that their part in the Meat Scheme was mainly confined to the registration of butchers, the issue of meat cards to consumers, and the supervision of the system whereby consumers were tied to particular shops.

The scheme proposed that in the Metropolitan Area, in view of the complications of local government and the magnitude of the problem, a separate office should be set up to purchase the whole of the supplies for London, employing wholesale butchers and meat salesmen as authorized dealers on a commission basis. This suggestion was ultimately realized by the creation of the Smithfield Control Board.

On the crucial question of reducing and fixing prices the original plan advocated a bold course. A drastic reduction in price would satisfy the demands of the industrial population and win the approval of the butchers, and at the same time would inflict no real hardship on the majority of farmers. Under War Office control the prices of hides was at that time 40 per cent., and of wool 50 per cent. above pre-war prices; whereas the prices of meat and cattle were more than 100 per cent. in excess of pre-war values. The new level of prices should be based on those ruling a year or two earlier, with an allowance for increased costs, but some provisions would have to be made for cases where farmers had bought stores for fattening at recently inflated values.

It was argued that a drastic reduction in price would not, as in other commodities, diminish the supply; indeed, by making it unprofitable for the farmer to continue fattening his stock, it might even increase the available supply during the coming months, when it was of the utmost importance that farmers should put more land under the plough. At the same time, a low price for cattle would discourage slaughter of milch cows and thus help to protect the milk supply. If a reduction in prices led to an increased rate of slaughtering, a reserve might be accumulated by increasing cold storage facilities. 'From the point of view of the food supply as a whole,' it was claimed, 'a reserve of meat would be more economical than a reserve of live cattle.'

The policy of reducing the herds in the country was in fact adopted by the Government and gave rise to a storm of controversy. In the meantime the immediate policy recommended was to reduce prices step by step during the next six months. As to the basis on which prices should be fixed the memorandum advocated the live weight system, though it was recognized that, where no weighing machine existed in a market, some form of independent arbitration would be necessary. To discourage the fattening of prime beasts (a practice that involved a waste of feeding stuffs) a maximum price would have to be fixed for all beasts over a certain weight. Wholesale meat prices, with allowances for the cost of cartage, transport, warehousing, slaughter, and the value of the offals, would be fixed so as to leave a reasonable profit to the salesman. This might necessitate different prices for London, large towns and country places, but something might be done to equalize costs of transport by fixing a flat rate for railway freight above a certain distance based on average costs. Retail prices would be fixed to correspond with wholesale prices in such a way as to leave a reasonable margin to the butcher, based on his pre-war profit adjusted to cover increased costs.

Such, broadly, was the plan adopted. Many of the worst difficulties that were anticipated proved less formidable in practice, and fresh difficulties arose which none had foreseen. But though the detailed methods of administration could only be learnt from experience, the preliminary planning proved in this case to have been conceived on the right lines.

CHAPTER XIV

THE PERIOD OF TRANSITION

Preliminary steps — Progressive reduction of prices — Live weight difficulties — Criticisms of price policy — Reduction of herds — The glut and the subsequent shortage — Appointment of Central Live Stock and Meat Trade Advisory Committee — Standardization of cuts — Wholesale Meat Supply Associations and their functions — Census of meat sold retail — Licensing and registration of traders — Inadequacy of fixing retail maximum prices — Threats of butcher's strike — Limitation of consumption — Crisis in the last week of December 1917 — Complete control established — State purchase of all live stock for slaughter — Pooling expenses of distribution — The Central Live Stock Fund — The meat trade as a national service.

THE scheme of control outlined in the previous chapter was approved in principle early in July 1917. It now remained to translate it into practice. For this purpose it was first necessary to find and enlist the support of influential farmers and meat traders, who believed not only that some form of control was necessary but that the plan drawn up was on the right lines. In addition it was necessary to select the right men to fill the responsible posts in the administrative machine which it was proposed to set up. These two initial difficulties proved formidable. The third task, which, though it took less time to complete, aroused such a storm of protest that at one time it looked as if the whole scheme of control would be wrecked, was the fixing of maximum prices on a descending scale monthly from September 1917 to January 1918. Fourthly, arrangements had to be made for the registration and licensing of all butchers, wholesale traders, auctioneers, cattle-dealers, owners of slaughter-houses, and others engaged in the meat trade. And, fifthly, before the scheme could be brought into effect it was necessary to take a census of all the cattle and sheep on every farm in the country, and at the same time to ascertain from every retail butcher the extent of his normal weekly turnover.

With this programme to carry out, it is not surprising that the Ministry took six months, from July to December, in which to complete its preparations. Another three or four months elapsed before the reorganization of the trade could be regarded as com-

plete, and the machine had settled down to a more or less regular routine. This period of transition throws light on some of the difficulties attending so ambitious a scheme of State control and the novel and often make-shift devices which were necessary to cope with them.

Early in August the plan was to bring prices down to a level based on cost of production by monthly reductions, the final stage being reached in January with the maximum price of 60s. per live cwt. The stages were as follows :

First grade cattle yielding more than 53 per cent. dead meat				
s.				
September	74	per cwt.	live weight	
October	72	"	"	"
November	67	"	"	"
December	67	"	"	"
January	60	"	"	"

The prices for September and October were based on the recommendation of the Army Cattle Committee.¹ These prices were arrived at as the result of a careful comparison of the market prices of stores and fat cattle over a period of several months, and calculations of the relationship which should exist between the values of meat, milk, and grain. For the latter months the Food Controller's reason for a further drop was that the market price of stores, which had been unduly inflated, might reasonably be expected to fall to a level corresponding with the future maximum prices of fat cattle. At the level so reached the value of both stores and fat cattle would still cover their cost of production, taking into account the percentage increase in the cost of wages and feeding-stuffs. Compared with the prices ruling in January 1914 the figure of 60s. represented an increase of 63 per cent., which was estimated to correspond fairly accurately with the average increase in agricultural costs.

¹ This Committee was appointed on April 25, 1917, to arrange for the purchase of about 250,000 cattle on which to feed the Army for five months while reserve stocks of frozen meat, diminished by shipping losses, were being replenished. This amount represents about 10 per cent. of the number of cattle annually slaughtered in the United Kingdom. The method of purchase adopted was to appoint local Buying Committees in each county under the chairmanship of a live stock auctioneer nominated by the Auctioneers' Institute. The experience gained from the administration of this scheme proved very valuable to the Ministry of Food. See Part I of the Report of the Army Cattle Committee, Board of Agriculture and Fisheries, 1918.

These prices having been determined as the basis, it was necessary to consider how best they could be enforced. Under the Army Cattle Purchase Scheme all that was necessary to enforce them was to instruct the Army buyers that they were not to pay more, and that they were to obtain authority to requisition if necessary. Even for the Army, however, there was the difficulty that weighing machines did not exist in many markets, where transactions normally took place not by weight but at so much per head of cattle. The Committee managed to get over this difficulty by obtaining the permission of the railway companies to use the weighing facilities in railway stations wherever that course was desirable. They added in their Report, however, that, though by this means it was possible to fix the price per cwt. live weight for army cattle, 'the weighing facilities would be entirely inadequate for a similar measure to be extended to civilian supplies.'¹ The cattle to be purchased for the Army were all of about the same grade, viz. yielding 53 per cent. of meat in the dressed carcass, and the buyer was responsible to the Government for estimating the yield to the best of his ability. For civilian supplies, however, it was thought that the estimate of the yield would have to remain a matter for bargaining between the farmer and the butcher.

In the absence of an official system for determining the grade of each animal, it was therefore impossible to attempt to enforce a scale of maximum prices for live weight varying according to the grade of the animal. On the other hand, to ignore all differences in grade and quality would have been unfair both to buyer and seller. It would have meant that a lean or bony old cow would sell for as much as or more than a well-fed young steer. Clearly, therefore, until control could be extended to the actual grading and valuation of every animal in the markets, the only prices that could be fixed with any hope of enforcement were the wholesale prices for dead meat. This was the course actually adopted. While an announcement was made that the prices to be paid by the Army would be according to the scale given above, an Order was issued on August 29, 1917, fixing legal

¹ *Op. cit.*, p. 14.

maximum prices for dead meat in the wholesale market according to a prescribed schedule.

By the same Order Food Control Committees were empowered to lay down schedules of local maximum prices for retail sale, which had to be submitted for approval to the Food Controller. The margin of profit allowed to the retailer was fixed at 20 per cent. on the wholesale price.

This is not the place for attempting to appraise the price policy of the Government in all its bearings. It is necessary, however, for an understanding of the subsequent course of control to summarize the reasons which were advanced at the time for and against the gradual reduction decided upon. In the first place it is clear that Lord Rhondda's policy was endorsed by the Government as a whole. Lord Milner, in his speech in the House of Lords on February 28, 1918, explained that after hearing the views of Mr. Prothero, then President of the Board of Agriculture, and of Lord Rhondda the Food Controller, he took the final decision on behalf of the Government.¹ The two chief justifications were, first, the need of allaying discontent on the part of the general public by a serious attack on high prices, and secondly, the desirability, and indeed the necessity, in view of the shortage of animal feeding stuffs, of bringing about a reduction in the herds of the country. This policy had already been endorsed by the Board of Agriculture when they gave their consent to the proposal for an additional slaughter of 250,000 cattle, representing 10 per cent. of the normal kill in a year, for the purpose of feeding the Army on fresh meat. Professor Wood, Chairman of the Army Cattle Committee, had pointed out the wastefulness of feeding animals till they reached a prime fat condition, owing to the limited supply of imported feeding stuffs for which shipping space was available. The falling scale of prices had therefore a two-fold object: first, to bring prices down to a reasonable level, based on costs of production, without inflicting hardship on farmers who had recently paid very high prices for stores; and, secondly, to increase the rate of kill during the last three months of 1917, so as to provide a surplus for Army needs. It was realized that one of the effects of the policy would be to bring about a compara-

¹ *Parl. Debates, H. of L.*, 1918, vol. xxix, cols. 205, 206.

tive shortage in the early months of 1918. A shortage during these months in home produced meat is largely seasonal, and is usually met by increasing supplies of frozen meat. In 1918, however, owing to the submarine campaign, the Government had every reason to husband its reserves of frozen meat most carefully. Lord Rhondda was therefore able to maintain against his critics that though the shortage in the early months of 1918 was admittedly due in part to his Orders, the policy he had pursued was deliberate and, in view of the shipping position at the time, to a large extent inevitable.

These considerations failed to impress the opponents of the policy. They prophesied that the falling prices during the autumn of 1917 would lead to the slaughter of large numbers of immature cattle, which would not only cause a severe shortage in the immediately succeeding months, but would have a permanently depressing effect on a staple branch of agriculture. It was argued that so low a price as 60s. per cwt. in January would mean a meat famine in the spring and early summer of 1918, and that the farmer could not be expected to fatten his cattle when he seemed to be faced with the prospect of certain loss in a few months' time. Already in August and September it was said that the large number of immature cattle which were being sold in the markets showed that something like a panic had set in and that farmers were realizing as fast as they could. In a few months, it was prophesied, there would be practically no fat cattle available and the country would be dependent on lean store cattle. If such expectations were realized, there was danger of an extremely serious diminution in the live stock of the country, and when the industrial population found that the Food Controller's short-sighted policy had dried up the sources of supply of fresh meat, they would have little cause to thank him for having at the same time reduced the level of prices.

This line of reasoning ignored an important element in the situation, namely, the effect of the policy on the market price of store cattle. It was by no means obvious that it would pay the breeder to give up his business rather than accept a considerably lower price for his store cattle. If graziers decided that they were not going to continue fattening cattle with a prospect of certain

loss, and if in consequence the majority of graziers refused to buy store cattle, there would be a heavy slump in the price of stores. This process had in fact already begun as soon as the maximum price of 60s. per cwt. for January was announced. It was obvious that as the price of young beasts fell, there would come a point when graziers would start to buy again, as soon as they saw their way to make a profit by selling later on at the new level of prices. The question therefore resolved itself into an inquiry as to whether 60s. per cwt. was sufficient to cover the cost of producing a fat beast from birth to maturity and at the same time leave a fair margin of profit to both breeder and grazier. Conditions varied so much that no exact reply to this was possible, but the balance of expert opinion favoured the affirmative. Partly, however, owing to the doubt on this point, and partly to reassure the farmers by making a politic concession in the face of the strong protests that had been evoked, Lord Rhondda on October 9 withdrew the price of 60s. for January and left the maximum at the December figure of 67s. per live cwt.

As regards the introduction of control over distribution the position in August was reassuring. The complete organization could not be ready for several months, but the prospect of a temporary excess of supply rendered detailed control of distribution unnecessary. So long as there was no shortage, supplies could be trusted to find their way through their accustomed channels. The essential task at the moment was to complete the necessary preparations for later control, and in particular to appoint the local officers, whom it was decided to call Live Stock Commissioners, and install them in convenient offices in each area. A large number of qualified experts were interviewed. Those finally selected were for the most part estate agents, who had had experience of Government administration as Agricultural Commissioners under the National Service Act. Two were civil engineers, and one, who became the Chief Live Stock Commissioner for Scotland, was a prominent farmer who had served on the Scottish Central Wool Advisory Committee. Pending the completion of arrangements for local offices and staff, the Live Stock Commissioners worked at head-quarters elaborating the details of the scheme for live stock control. Preliminary steps were also

taken at this time to enlist the support of live-stock auctioneers throughout the country, and preparations were made for a census of live stock which necessitated the printing of about a million census forms.

Early in October the Central Live Stock and Meat Trade Advisory Committee was set up, consisting of representatives of farmers, auctioneers, meat importers, meat salesmen, retail butchers, co-operators, journeymen butchers, and officials of the three Boards of Agriculture and of the Ministry of Food. Its function was to advise the Ministry on all questions relating to the production, supply, and distribution of meat. It became in a real sense the Live Stock and Meat Trade Parliament. No Order affecting live stock or meat supplies was made by the Food Controller without being discussed and approved by this body. Without the opportunity it presented of ventilating grievances and reconciling divergent interests, the drastic powers which the Food Controller possessed would have been invoked in vain. Undiluted bureaucracy would certainly have failed. Success depended on obtaining the most representative opinion of those engaged in the trade and on winning their hearty support, or at least patriotic acquiescence, in carrying out the measures proposed.

An example of the kind of measure which greatly simplified control, but could only be introduced with the goodwill and co-operation of the trade, was the standardization of trade customs. Meat is sold wholesale not only in carcasses, but in sides and large joints, cut to suit the convenience of the retail butcher. The method of cutting was found to vary in different parts of the country, thus rendering the drawing up and enforcement of wholesale maximum prices very difficult. One of the first tasks of Sir Francis Boys, K.B.E., who was appointed Director of Meat Supplies in October 1917, was to standardize the cuts to be used in the wholesale trade throughout the country and to fix wholesale maximum prices for these cuts. Though the names of the different joints continued to vary, the trade agreed to unify its methods of cutting. Retail maximum prices were at that time being fixed by local Food Committees to meet local requirements. Model scales were drawn up in the Ministry and every local scale had to be

submitted for approval to an expert in the Ministry before being enforced. This involved a large amount of labour which totally disappeared when later, owing to the standardization of wholesale cuts and the averaging of costs of distribution in the manner to be described, it was found possible to introduce practical uniformity in retail prices for the whole of Great Britain.

During November active steps were taken to organize Wholesale Meat Supply Associations in the eight centres of wholesale distribution. Every wholesaler was required to join one of these Associations as a condition of his licence. The Memorandum and Articles of Association of these bodies, which were drawn up in consultation with the legal advisers of the Ministry, gave the Food Controller a share in their control. Their creation was an essential step in the direction of integration and unitary control, and away from the competitive individualism which had hitherto characterized the trade. The principle of throwing as much responsibility as possible upon self-governing associations of traders, organized for the purpose of performing an essential public service, was one of the lessons which the experience of Wool Control had emphasized. The Wholesale Meat Supply Associations, which acted partly as agents, partly as contractors to the Government, provided a solid backbone for the scheme of control. They put up a financial guarantee backed by all their members, and were held responsible for the performance of many onerous duties, which it would have been impossible for a Government Department to carry out. By centralizing information, acting as a single channel of communication, and co-ordinating the operations of their members in the fulfilment of a definite programme, they provided a sort of General Staff for the meat trade in their area. But unlike the General Staff of the Army, their directors, councillors, and committee men were appointed by and responsible to the members of the trade. Their principal functions were to receive meat purchased on behalf of the Ministry, either on the live weight basis from markets or on the dead weight basis from Government authorized slaughter-houses; and to distribute such supplies among their members in accordance with a programme laid down by the local Meat Distribution Committee, consisting of the Live

Stock Commissioner, the Area Meat Agent, and representatives of meat importers, wholesalers, and retail butchers.

Another important step taken during November was a census of meat bought and sold by retail butchers in the four weeks ending October 27. The Local Food Committees were made responsible for the distribution and collection of returns. This census of consumption was made the basis of distribution to retailers, pending the introduction of the National Rationing Scheme. Before the end of November Orders had been made and the necessary measures taken to register and license all persons engaged in the cattle and meat trade. During November and December the question of issuing an Order restricting the slaughter of animals was discussed by the Ministry of Food and the Board of Agriculture, but strong objection was urged on behalf of the farmers against any interference with the rate of slaughter. On December 11, however, owing to a rise of prices in the livestock markets, the Food Controller issued an Order restricting the sale of meat by retail butchers to the amount of meat sold by them during an equivalent period in October.

All this time continuous work was being done in completing the final details for the introduction of complete control over the purchase of cattle and the distribution of meat from the farm to the butcher's shop. The day was rapidly approaching when the temporary glut would give place to scarcity and the new machinery of distribution would have to be brought into operation immediately, if maximum prices were to be maintained and the general shortage was to be fairly equalized over the whole population. The amended scheme in its main outlines was approved by the Central Advisory Committee early in December. Great difficulty was experienced in deciding the issue of live weight *versus* dead weight. The majority of experts advocated the latter, but it was obvious that its general introduction would have involved a revolution in the habits of the farmer, and would have necessitated the construction of a number of additional central slaughter-houses. There were also technical objections arising out of transport difficulties and the absence of refrigerated cars. On the other hand, purchase by live weight presented serious difficulties and was regarded as unfair to butcher and farmer alike. There were

very few experts qualified to estimate the yield of dead meat in a live beast. Experiments carried out under the auspices of the Army Cattle Committee had demonstrated how easy it was to miscalculate. Professor Wood, the Chairman of this Committee, and many other agricultural experts favoured the dead weight system as being the only fair method. Moreover, there were many parts of the country where weighing machines suitable for weighing live cattle did not exist. In these circumstances a decision as to the exact procedure to be adopted was postponed to the very last moment.

Hitherto, though maximum prices had been fixed by law for wholesale and retail sales of dead meat, the corresponding prices per cwt. live weight were not legally binding and were only observed by the Army buyers. Many people, indeed, were of the opinion, which they professed to deduce from economic first principles, that so long as the price of meat was fixed in the shop there was no need to interfere with the price of live cattle. It was argued that no butcher would be foolish enough to pay more for his cattle than he could afford, having regard to the price at which he could sell. Therefore, since all butchers were in the same position, and there was no other outlet for the cattle offered for sale, the market price could not rise above a figure which would just leave the 'marginal' butcher a reasonable margin of profit. This *a priori* line of reasoning proved to be quite fallacious. Competition between butchers was so keen and their natural desire to retain their customers and trade connexions was so strong, that they did not hesitate to bid against one another even to the extent of forcing the price up to a level which left them with the prospect of certain loss on resale at the maximum prices. This gave the financially strong firms a big advantage over their weaker rivals. Some of the big West End stores and multiple shops were stated to be losing as much as a thousand pounds a week in their determination to maintain their trade. The operation of uniform maximum prices also penalized the towns as against the country. When, as during the autumn months, supply exceeded demand, distribution took place smoothly enough. But now that the temporary glut of cattle was over and prices of live stock rose in the country markets to a level

which left little or no profit to butchers, there was no margin to cover the cost of transport to thickly populated districts. So long as high prices could be obtained locally, the town butcher had to go short or make a certain loss, while the country butcher with lower handling charges was still able to carry on.

In December the position was rapidly becoming impossible. In London threats were heard of a butchers' strike, unless something was done to relieve them. Clearly, if maximum prices were to be maintained, control would have to be extended to the live-stock markets, and butchers, instead of competing against one another, would have to be guaranteed a fixed quota based on their normal requirements.

As a temporary measure of relief it was decided to reduce the demand in two ways. First, an Order called the Meat (Restriction of Retail Sales) Order was issued on December 11, 1917, limiting the quantity of meat which a butcher might sell in the four weeks ending January 13th to the quantity of meat which he sold in the previous October. This was specially designed to prevent the seasonal increase in consumption which usually takes place during the Christmas holidays. Secondly, under the Public Meals Order, 1918, one meatless day each week was prescribed for public eating-places, and the amount of meat which might be served to each customer was restricted to 3 oz. uncooked at luncheon and the same at dinner. These measures did something to restrict demand during the most anxious period, but they did little to check uneven distribution. Meat queues came into existence in London and the large towns, and many butchers were closing their shops.

The Central Advisory Committee, which was reluctant to take the final plunge before a more satisfactory solution had been found for the technical difficulties of valuation, proposed that an interim Order should be issued limiting the price paid for a beast for slaughter to the equivalent of 1s. per lb. dead weight together with a sum not exceeding 2d. per lb. on the weight of the dressed carcass for offals. It was hoped that this would do something to stop the forcing up of prices in the markets; but since in the absence of any official valuation it left the determination of the yield a matter for bargaining between buyer and seller, not much

faith was placed in its efficacy, and though the Order was signed on December 24 it was never issued. In practice it would have been impossible to enforce. Until the Government was in a position to intervene between buyer and seller and establish some system of official valuation and allocation, it was recognized that no mere edict could prevent competition forcing up prices and the larger buyers obtaining more than their fair share of supplies. Meanwhile, the position was becoming every day more critical. At the end of December it was seen that drastic action had to be taken at once.

The final details of the complete scheme were worked out on Christmas Eve and telegraphed all over the country at 2.30 a.m. on Christmas Day. The Government was to buy all live stock from the farmers, pool all the intermediate expenses of transport and distribution, and resell to butchers at fixed prices which should be uniform throughout the country. Live-stock auctioneers were appointed Government agents, and official Grading Committees consisting of a farmer, a butcher, and the auctioneer were set up in every market to grade and weigh all beasts for slaughter. Certain exceptions were made in the case of markets where there were no weighing machines and in places where the practice had been to buy and sell on the dead weight basis. The text of the Order under which this action was taken is the Cattle (Sales) Order, 1917.¹ The same system was applied to sheep a month later under the Sheep (Sales) Order, 1918.²

The pooling of intermediate expenses, in order to maintain a uniform price to the farmer and uniform prices in the butchers' shops throughout the country, involved the setting up of a national pool, which was called the Central Live Stock Fund. By means of this institution the meat trade of the country was virtually conducted as by one gigantic multiple shop, its relations with retailers bearing some resemblance to those of the Imperial Tobacco Company, with its complete control of supplies and its uniform retail prices and fixed agency terms. The pooling of distribution costs proved a wise course. It gave elasticity to the scheme, rendered changes of price and of policy possible without having to consider vested interests and individual hardships, and

¹ Appendix 9.

² Appendix 10.

made it possible to guarantee fixed remuneration to the many different categories of middlemen engaged in the process of distribution. The meat trade of the country from this time onwards began to function for the nation much as the Army Service Corps was functioning for the Army at the front. The majority of its members had given up their private businesses and were enlisted for national service.

CHAPTER XV

MEAT CONTROL IN OPERATION

The crisis surmounted — Complete control established — Organization of live stock control — Duties of auctioneers — Grading committees and schedule of prices — Allocation to butchers — Farmers Selection Committees — Assessment of supply quotas — Regulation of demand — Meat rationing introduced, February 1918 — Registration of customers — Meat permits — Machinery of distribution, in Food Committee areas, in Live Stock areas, and at head-quarters — Functions of Meat Agents, Wholesale Meat Supply Associations, Importers Committees, National Meat Distribution Committee — Government slaughter-houses and the dead weight system — Smithfield Control Board — Central Live Stock Fund — Meat finance — Irish imports — Frozen meat imports.

WHEN the live stock and wholesale meat markets reopened on December 27, after the Christmas holidays, the new machinery which had been set up was suddenly brought to the test. Anxious days and nights were passed at head-quarters; crises followed one another in bewildering succession; but in spite of local shortages, misunderstandings, and much impatience at the complexity and novelty of the scheme, there was never any serious danger of a breakdown. The scheme worked surprisingly well, even in the early stages, owing to the loyal response of the auctioneers and meat traders throughout the country. Meetings of farmers were held in which the necessity for and the working of the scheme were explained. The Wholesale Meat Supply Associations not only secured the co-operation of their members, but from the first showed common sense and initiative in improvising ways out of local difficulties without waiting for instructions from head-quarters. Area Live Stock Commissioners and their staffs made it a point of honour to settle as many problems as possible on the spot without referring to Whitehall. Though the supplies of meat continued very low during January and February, it was possible, owing to the complete control now exercised and the exact information available as to supplies, to deal with the most serious cases of shortage by sending surpluses from exporting areas and by dispatching emergency supplies of frozen meat. From that time on the position steadily improved. The intervention of head-quarters became less and less called upon, with the result that the staff at the Central Office was

gradually reduced. Co-ordination was secured by periodical conferences of Live Stock Commissioners. Day to day administration was devolved on the district offices, while head-quarters concentrated on problems of general policy and acted as a central clearing-house of information and statistics.

In April 1918, with the setting up of the Smithfield Control Board, the main lines of the organization were firmly established. It will be useful to give a survey of the whole mechanism and show how the various parts functioned in relation to one another. The scheme falls into three parts :

1. The creation of a territorial organization for the control of the supply of live stock.
2. The introduction of national rationing for the control of demand.
3. The re-organization of the meat trade for the regulation of distribution.

Live Stock Control

For the purpose of live stock control Great Britain was divided into fourteen live stock areas, thirteen in England and Wales, and one in Scotland, each under the charge of a Live Stock Commissioner. Scotland was subdivided into six districts under Deputy Commissioners. Live Stock Areas were again divided into Chairman's Sections, under the supervision of a Chairman of Auctioneers. A Chairman's Section corresponded as a rule to a county, and was subdivided into Market Districts under Deputy Chairmen, each embracing a number of Rural Districts or Food Control Committee Areas. In these market districts there might be one or more live stock markets. Assisting each Live Stock Commissioner was an Area Live Stock Advisory Committee, whose duty was to advise him on all matters arising out of the supply and distribution of live stock in the Area. It consisted of two farmers, one auctioneer, and one butcher from each county in the Area, and two cattle-dealers chosen from the whole Area, the members being nominated by their national or local associations.

The Live Stock Commissioner was responsible for the successful functioning of meat and live stock control in his Area. With the

assistance of his Sub-Commissioners he supervised the operations of live stock auctioneers, including the Chairman, Deputy Chairmen, and individual auctioneers and cattle salesmen. In consultation with his Advisory Committee he had to assess the quota of live stock which each market district must furnish, to determine within the Area which markets should supply the needs of each Food Control Committee Area, to direct the transfer of stock either to meet deficiencies in his area, or to another Area in accordance with instructions received from the Chief Live Stock Commissioner, and to collect and report to head-quarters exact information as to the number of cattle coming forward and the number likely to be available for slaughter within the next few weeks. The Live Stock Sub-Commissioners acted as deputies and in particular looked after the system of grading and valuation.

The control of the markets was exercised by the Live Stock Auctioneers, organized into district groups under the direction of a Chairman for the whole county and a Deputy Chairman for each market district. They were not paid direct by the Government, but received their remuneration from their national organization, the Auctioneers Institute, which made a collective contract on behalf of its members, and received out of the Central Live Stock Fund a sum of 6s. per head for cattle and 9d. per head for sheep on all live stock for slaughter which passed through the markets. These sums were paid into the Auctioneers' Pool. Out of this Pool the Auctioneers Institute paid the remuneration of its members, including Chairmen and Deputy Chairmen, in such a way as to avoid inequalities and to apportion losses and compensation as evenly as possible over all. This was all the more necessary since some markets lost much of their business, some were closed altogether, and others had a greatly increased number of stock passing through them.

The duty of the auctioneer was to act as Government agent for the purchase of live stock from the farmer and re-sale to the butcher. Animals were graded by a Grading Committee consisting of one farmer, one butcher, and the auctioneer, and were placed either in first, second, third, or fourth grade according to the estimated yield of dead meat on the animal. For each grade a separate price per cwt. was fixed under the Cattle (Sales)

Order, 1917. The first schedule of prices appended to the Order was as follows :

SCHEDULE OF MAXIMUM PRICES

Bulls, bullocks, and heifers

Grading	Price per cwt.
1st Grade, 56 per cent. and over . . .	75s.
2nd Grade, 52 per cent. to 56 per cent. . .	70s.
3rd Grade, 48 per cent. to 52 per cent. . .	65s.
4th Grade, under 48 per cent. . .	as valued

Cows

Grading	Price per cwt.
1st Grade, 52 per cent. and over . . .	70s.
2nd Grade, 46 per cent. to 52 per cent. . .	62s.
3rd Grade, 42 per cent. to 46 per cent. . .	53s.
4th Grade, under 42 per cent. . .	as valued

After the grading was completed, the farmer received payment on presentation of a certificate signed by the auctioneer, which could be cashed either at the auctioneer's office or at the market bank. After the animals had been graded and paid for, the auctioneer's next task was to allocate them among the buyers present, all of whom were required to hold buying permits authorizing them to buy up to a certain quantity. To assist him in this role an Allocation Committee was appointed in each market consisting of three persons : one representing the buyers for local butchers' committees, one the buyers for Wholesale Meat Supply Associations, and one representing the consumers' interest. (It sometimes happened that the buyer for the wholesale butchers in a distant town, being in a minority, had to be content with what was left after the local butchers had taken their pick. If complaints on this score became frequent, the Chairman or Deputy Chairman would be asked by the Live Stock Commissioner to intervene.) The buyers were required to pay the purchase price which the farmer had received, with the addition of a fixed 'per head charge' of 30s. for cattle and 3s. 6d. per head for sheep, for which the auctioneer had to account to the Central Live Stock Fund. In return the butcher might recover certain expenses, e.g. for droving, lairage, and slaughter-house dues, on production of vouchers signed by the auctioneer who sold the cattle, and was entitled to free transport on the railways for any beasts for which he held a consignment note issued by the auctioneer. If the

number of beasts coming into the market was in excess of the needs of the buyers present, the surplus would be reported immediately to the Live Stock Commissioner, who would give instructions as to its disposal. Occasionally it was necessary to return stock to the farmers, but this caused dissatisfaction, and efforts were always made to absorb the surplus elsewhere, either by sending them alive to some other market, or by having them killed in a Government Authorized Slaughter-house and dispatched as carcasses to the order of one of the Wholesale Meat Supply Associations.

Records and vouchers were collected by the Chairman of Auctioneers, who received a special allowance for the extra clerical assistance required. The business of the Deputy Chairman, besides looking after the procedure at the markets in his district, was to endeavour to control the number of stock forwarded and to maintain a regular supply. For this purpose he had to obtain information from the neighbouring farmers as to the cattle and sheep they were likely to have ready during the next few weeks and to regulate the flow to meet the demand. To assist him in this task Farmers' Selection Committees were appointed, who advised him as to the steps necessary to procure for the market the weekly quota of supplies for which the district had been assessed. In some places the Deputy Chairman held meetings of all the farmers in the district, to explain his requirements and settle with them the number of stock which each would get ready for slaughter during the next few weeks. By this means a definite programme was laid down, and in the smaller market districts the Deputy Chairman could almost identify the animals which he expected to find each week in the market.

Assessment of Supply Quotas

As a result of the census taken on December 2, 1917, the Live Stock Commissioners had in their offices full particulars of the number, sex, age, condition, &c., of the cattle and sheep on the farms and small holdings in their areas. On the average there were about 30,000 farmers in each Live Stock Area. Every return was registered and card-indexed under the farmer's name. A summary of the results divided into counties was sent to

head-quarters, where the figures were correlated with statistics of the population. With these figures before them an Assessment Committee drew up a table showing which Areas were self-supporting, which showed deficiency, and which had a surplus available for dispatch elsewhere. Seasonal changes, and examination of the figures of stock grouped according to age, necessitated different tables for different times of the year. Broadly, the exporting areas were found to be Scotland, Cumberland and Westmoreland, North Wales, West Midlands, the South Western Counties, and East Anglia. In addition, Ireland supplied a large surplus for export. The importing Areas were Northumberland and Durham, Lancashire and Cheshire, Yorkshire and East Midlands, and the two Areas which made up London and the Home Counties. A provisional assessment was made, apportioning the quota which each Area was expected to yield, and notified to each Live Stock Commissioner. The Area Live Stock Advisory Committee then considered whether the quota was reasonable, and when agreement was reached, the Live Stock Commissioner in turn made his assessments for each county and for each market district. When these had been fixed it was the duty of each Deputy Chairman to see that the supplies were forthcoming.

Regulation of Demand

On February 25, 1918, individual rationing of meat was first introduced under the London and Home Counties Rationing Scheme; on April 7 the system was applied to the whole of Great Britain. Applications for meat cards were issued to all householders to be filled in and returned to the Executive Officers of the two thousand Food Control Committees, who then issued meat cards to the applicants. The applications provided more exact statistics of the population than had hitherto been available and gave reliable data on which to base the requirements of each district and Area.

It was not sufficient, however, for each individual to be limited to the purchase of the amount specified on his ration card. If the meat coupon was to be strictly honoured, it was necessary to know where it would be presented. Consumers were therefore required to register with a particular butcher, and

were only allowed to change their choice every six months or so. By this means every butcher knew the exact number of customers for whom he had to provide, and informed the local Food Office accordingly. This information was transferred to the Deputy Meat Agents responsible for local distribution of meat; and the butcher obtained a permit to buy either so much live stock or so much dead meat per week. If he desired to buy dead meat, he registered with a wholesale supplier, who in turn notified the Meat Agent of the number of retail butchers registered with him, and obtained his weekly quota of supplies through the agency of his Wholesale Meat Supply Association. By this means the total requirements of each Area were obtained, and could be checked against previous estimates based on figures of population and numbers of ration cards issued. It was generally found that the actual amount demanded was less than the estimated requirements. This was due to the fact that when the ration was one pound, and even when it was only three-quarters of a pound per head per week, a certain part of the population, especially in Scotland and in some country districts, did not choose, or could not afford, to purchase the full amount to which their ration entitled them.

Regulation of Distribution

Two conditions for regulating distribution were fulfilled by obtaining control of supplies at the source and by limiting demand to an ascertained amount. It is now necessary to examine the mechanism by which the intermediate stages of distribution were effected. The links in the chain were as follows :

Head-quarters :	Director of Meat Supplies and Chief Meat Agent. National Meat Distribution Committee. Associated Importers Committee.
Live Stock Areas :	Area Meat Agent. Local Meat Distribution Committee. Wholesale Meat Supply Association. Local Meat Importers Committee.
Food Committee Areas :	Deputy Meat Agent. Butchers Committee.

Food Committee Areas

Retail Butchers Committees were formed at the instigation of the Ministry to facilitate local distribution. Instead of buying individually butchers were grouped together and appointed a joint buyer. Wherever possible a single buying permit was issued to the butchers in each Food Committee Area, in which case the dividing up of the stock purchased amongst the individual members was performed by their own representative Committee. The business of the Deputy Meat Agent, who was a meat trader appointed as a whole-time official by the Ministry, was to look after the requirements and supplies of a group of Food Committee Areas and their Butchers Committees. He had to obtain from the local Food Committee particulars as to the number of customers registered with each butcher; to ascertain from the butchers the amount of live stock or dead meat which they required to meet their customers' weekly rations; to check these demands and see that they were reasonable—a task which only an expert in the meat trade could carry out; to issue buying permits to individual butchers or to Butchers Committees; and to see that they obtained their share of live stock in the markets or their quota of dead meat from the Wholesale Meat Supply Association. Any shortages or complaints he had to investigate on the spot and report upon to his immediate superior, the Area Meat Agent.

Live Stock Areas

The Area Meat Agent was an expert in the meat trade on the staff of the Live Stock Commissioner, and reported on technical matters to the Chief Meat Agent at head-quarters. His business was to supervise the Deputy Meat Agents and the issue of buying permits to the butchers in the Area; to draw up in consultation with the Live Stock Commissioner and the auctioneers the plan whereby each group of butchers was tied to a particular market; to co-ordinate the supply of live stock and dead meat for the butchers in his Area; to make good any deficiency of live stock by arranging through the Area Meat Distribution Committee for a supply of dead meat; and generally

to deal with any shortages or complaints that might arise, so far as retail butchers were concerned.

The chief organ of local meat distribution was the Area Meat Distribution Committee. There were nine of these in Great Britain corresponding to the number of Wholesale Meat Supply Associations, certain Live Stock Areas being amalgamated for dead meat purposes. These Committees consisted of the Live Stock Commissioner, the Divisional Food Commissioner, the Area Meat Agent, representatives of the American and Australasian meat importers, of the Wholesale Meat Supply Association, and of the retail butchers in the Area. They thus included representatives of those responsible for the three main sources of supply : live stock, home-killed meat, and imported frozen meat. So far as supplies in these three forms existed in the Area, it was the business of the Committee to arrange for adjusting their distribution. Local deficiencies in live stock were made good by transferring stock from another district or by sending supplies of home-killed meat or frozen meat. Instructions for the transfer of live stock were given by the Live Stock Commissioner to his Chairmen and Deputy Chairmen of Auctioneers ; for the supply of home-killed meat to the Wholesale Meat Supply Association of the Area ; and for the release of frozen meat from cold store to the local Meat Importers Committee. Surpluses and deficiencies in the Area as a whole were reported to the National Meat Distribution Committee at head-quarters, and in cases of emergency application would be made by telegram for prompt delivery from outside the Area. Emergency supplies of live stock would be delivered to the order of the Wholesale Meat Supply Association, if they were required for a large town, or to the Live Stock Auctioneer, if they were intended for a rural district ; supplies of frozen meat would be sent to local agents of the meat importers. In general, the duties of the Area Meat Distribution Committees were, first, to draw up and modify from time to time a regular programme of distribution, which would normally work without difficulty ; and secondly, to deal promptly with any emergencies that were reported owing to the partial failure of the regular programme. For this purpose it was necessary to keep as large reserves as possible in the form of frozen meat. Statistics as to

the amount of imported meat in cold storage in the Area were carefully watched, and as soon as they began to fall below a certain figure demands would be made on head-quarters to have the reserves replenished.

Head-quarters

The pivot on which the whole mechanism turned was the National Meat Distribution Committee in the Ministry of Food and the executive officials who worked with it. This was a joint committee consisting of the delegates of the Wholesale Meat Supply Associations, who formed a National Board for the wholesale trade, and of four meat importers, two nominated by the American firms and two by the Australasian importers, who together constituted the Associated Meat Importers Committee. The chief duties of the National Meat Distribution Committee were to review the statistics showing the immediate and prospective supplies of live stock and frozen meat, to determine the amount available for supplying the weekly ration per head of the population; to draw up periodical programmes for adjusting supplies and requirements for the Areas as a whole; and to deal with emergencies as they arose by setting in motion the machinery for transferring live stock or frozen meat from point to point as the occasion demanded. Instructions for the dispatch of live stock from Area to Area would be given to the Live Stock Commissioners concerned, and instructions for transferring supplies of frozen meat would be given to the Associated Importers Committee. The Associated Meat Importers, though they were no longer allowed to import and sell meat on their private account, were permitted to handle the meat purchased by the Government and to act as agents for its disposal according to the instructions given to them. In every Area they had their agents who knew the locality, and had access to the cold stores in which the reserves were kept. The largest reserves were kept in London, and emergency supplies were generally obtained by drawing upon this central source of supply.

Lastly, the control of the whole organization and the responsibility for decisions as to policy rested with the Meat and Live Stock Board, which included in addition to the Chairman

and Deputy Chairman, who were civil servants, the Director of Meat Supplies and his Deputy, the Chief Live Stock Commissioner, the Chief Meat Agent, the Supervisor of Slaughtering, and the Secretary and Accountant of the Central Live Stock Fund.

The Control of Slaughtering and the Dead Weight System

In order not to complicate the account of supply and distribution, the machinery for regulating purchase and sale on the dead weight basis has been reserved to the end. It will be remembered that though the experts generally agreed that purchase by dead weight was the only fair system of enforcing maximum prices, the general adoption of so revolutionary a change would have met with the strongest opposition from the farmers and with insuperable practical difficulties in execution. In the original Cattle (Sales) Order, 1917, and in the corresponding Sheep (Sales) Order, 1918, which required every beast for slaughter to pass through a live stock market, and established Grading Committees for the purpose of assessing the grade of each animal according to the estimated yield of dead meat, exceptions were permitted in places where sale on the dead weight basis had been customary in the past or was expressly arranged in agreement with the local farmers.

The extension of the system, though not its universal adoption, was undertaken by the Ministry of Food on several grounds. In the first place, the grading system, though it worked well on the whole, was never quite satisfactory. Continual complaints were received, especially in the early stages, that the estimates of the Grading Committees, which could never be anything more than intelligent guess-work, tended in most cases to be unduly favourable to the farmer. The result was that retail butchers who obtained their supplies in the live stock markets did not obtain the average yield of meat, to which the price paid entitled them. Further, the live stock obtained by the Wholesale Meat Supply Associations were purchased by them as agents for the Ministry, and any loss due to over-grading consequently fell on the Central Live Stock Fund. The loss in both cases was to a certain extent, but not altogether, compensated by the profit obtained on the sale of the offals. The second reason was the difficulty found in

providing every butcher with his exact weekly quota of meat, when live cattle were supplied ; the margin of error each way was necessarily great, and the difficulty was only partially met by inducing Butchers Committees to buy and slaughter jointly, and to cut up the carcasses to suit each member's exact requirements. Thirdly, the grading of fourth grade and 'casualty' cattle, that is, beasts which were abnormally old or lean or in other ways not up to the normal standard, was an almost impossible task ; and special care had to be taken if their meat was sold for human consumption. Lastly, the grading system could never be applied successfully to calves, and special measures had to be devised to prevent their slaughter being stimulated beyond safe limits owing to the competitive prices offered by the butchers.

All these reasons contributed to the important step whereby the Ministry gradually assumed control of slaughtering, and established Government Authorized Slaughter-houses in convenient centres throughout the country. The centres used for Army slaughtering under the Army Cattle Purchase Scheme were taken over, and where public abattoirs existed, they were made use of, the official superintendent being temporarily employed as a Government Agent. In other places the best-equipped premises available were selected for the purpose. This extension of control contributed to two incidental reforms, first, the better utilization of slaughter-house by-products, and secondly, the concentration of slaughtering in public slaughter-houses, a measure which had long been desired by Local Authorities and reformers on humanitarian and sanitary grounds.

In connexion with the utilization of by-products it is worth noting that relations were thereby established with other Government controls. Loose fat and bones were handed over to the Tallow Melters and Bone Users Associations controlled by the Oils and Fats Department of the Ministry of Food. Sheep's stomachs were made use of by the Feeding-stuffs Department. Calves' vells were carefully preserved and sold at fixed prices to the manufacturers of rennet, whose output was distributed by the Butter and Cheese Section of the Ministry for the manufacture of cheese. Hides and sheepskins were sold to buyers controlled by the Leather and Wool Departments of the War Office. And

even the supply of surgical gut received special attention at the instance of the Departments concerned with medical supplies. The proper handling of by-products and the prevention of waste, which centralized slaughtering rendered possible, was one of the most valuable features of the extension of the dead weight system.

The organization of slaughtering ran on parallel lines to the main organization. At head-quarters there was a Chief Supervisor of Slaughtering, responsible to the Director of Meat Supplies, with a deputy and two assistants. In each Live Stock Area an Area Supervisor was attached to the staff of the Live Stock Commissioner to look after the operations of Government Authorized Slaughter-houses. Chairmen and Deputy Chairmen of Auctioneers were encouraged to make contracts with farmers for the dispatch of a given number of beasts and sheep direct to these slaughter-houses for sale on the dead weight basis instead of to the live stock markets. A Government Slaughter-house Agent was appointed to run each slaughter-house, to receive and account for the animals received, and to consign the carcasses either direct to local butchers or to the nearest Wholesale Meat Supply Association. He marked and numbered the animals, and kept complete records in a 'Killing Record Book', giving the name and address of the consignor, the dates of arrival, slaughter, weighing, and dispatch, details as to the weight of each carcass, and the disposal of the hides, skins, and offals. By this means it was possible to ensure proper identification of each animal and to guarantee the accuracy of the weights. Farmers soon began to show their appreciation of the new system, and one important result which the Ministry achieved was to encourage the establishment of Farmers' Co-operative Slaughter-houses, where the work of slaughtering could be carried out under the joint supervision of the farmers and the Government.

Smithfield Control Board

A description of the meat organization would be incomplete without mention of the special arrangements made to supply London and the Home Counties. More than a quarter of the population of Great Britain is dependent for its meat on the great central meat market at Smithfield. In 1914 the total supplies

of meat which passed through Smithfield in a year was equivalent to about a million head of cattle and seven million sheep. These supplies came in a steady stream from all quarters of Great Britain and from North and South America, South Africa, Australia, and New Zealand. Smithfield was the meat clearing-house of the world, and the prices realized there determined the level of prices in the most distant countries.

The market itself is a huge glass-roof building containing over three hundred separate stalls or shops. Apart from firms specializing in the poultry trade, there were 196 firms dealing in meat, of whom forty-one represented the large importing agencies of the foreign and colonial freezing works and the remainder were British firms operating as dealers, jobbers, and salesmen. The total number of men employed, including journeymen butchers, porters, scalesmen, &c., amounted to about 10,000. Smithfield firms had buying agents, clients, and regular business connexions scattered all over the country. Carcasses slaughtered as far afield as Aberdeen in the north and Devon in the west were consigned in special refrigerated meat-vans, hitched on to the express trains to London, and discharged in the immediate vicinity of the market. Every hour of the day and night supplies might arrive, the busiest hours being from 2 a.m. to 5 a.m., when the night trains were discharging the meat which would be in the butchers' shops by ten o'clock the same morning.

Competition in normal times ensured that prices were keenly sensitive to the smallest fluctuations in demand or supply. Under such conditions a serious shortage or an embarrassing glut could scarcely arise. It required no forethought or statistical calculations on the part of any 'General Staff' to ensure that supplies of meat were always available of the right quality and in the right quantity.

The introduction of fixed prices, rationing, and control of supplies played havoc with this intricate piece of machinery. Its automatic self-regulating mechanism was thrown out of gear, and at one time threatened to stop altogether. During the early months of control the wholesale traders of Smithfield found it impossible to carry on their business without making a loss; and only force of habit, financial strength, and a sense of public

duty kept them at their posts. When the complete system of control was introduced with the London and Home Counties Meat Rationing Scheme on February 25, 1918, they ceased to make losses, but their occupation was gone. A hundred and fifty-five separate firms were amalgamated into the London and Counties Wholesale Meat Supply Association, and their stalls were commandeered by the Ministry of Food. Individual trading came to an end, and the market was transformed into something like a gigantic Army Depot, to which thousands of butchers came and drew their daily rations for a population of nearly ten million.

One of the chief difficulties experienced in the rationing of London, a difficulty which attends all rationing to a greater or less degree, was to ensure a fair distribution of the many different qualities of meat available. In normal times the best meat naturally went to the West End of London, which could afford to pay the higher price. Under control, though prices varied according to a schedule for different cuts and joints, it was impossible to lay down differential prices varying according to quality. Variations in the quality of meat are impossible to define, and for the ordinary customer not easy to distinguish. Even frozen meat, if it is in good condition and properly 'thawed out', is hard to distinguish from home-killed meat.

With rationing and fixed prices such differences had to be ignored. The Ministry had to adopt the principle that all classes and all districts should be treated alike as regards quantity, quality, and price. An absolutely equal division was, of course, an administrative impossibility; but the only way to avoid discontent was to endeavour to be as fair as possible. This had a serious consequence for the traders of Smithfield; for it meant the breaking down of trade connexions and the end of all specialization and division of labour between different firms. Firms had formerly been distinguished for the quality of their meat and the particular line of trade to which they devoted themselves. Under the Smithfield Control Board the stalls were divided up according to the districts they had to supply, the whole market being mapped out to correspond with the Food Committee Areas of London.

The new procedure involved careful regulation at each step. The public registered with the retail butcher. The butcher

informed the Food Control Committee how many customers were registered with him, and received a 'buying permit', which stated the amount of meat he could buy. These permits were forwarded to the London Area Meat Agent, who sorted them out according to Food Committee Areas. The total amount of meat required for each group of butchers was then notified to the Smithfield Control Board. The market being divided up into 114 sections, corresponding to the number of Food Committee Areas in the Metropolitan District, the Control Board had to see that the stalls in each section received each day the exact amount to which they were entitled, in their proper proportion of English, Scotch, Irish, American, Colonial, and other meat. These supplies were then handed over to an 'allocator' for each group, who was appointed by the London Retail Meat Supply Association, and whose duty it was to see that each butcher obtained his proper quota.

Though this sounds simple enough on paper the practical difficulties involved were immense. Eight million pounds of meat had to be distributed each week. Sometimes the supplies ordered would fail to arrive; at other times consignments would arrive unexpectedly. As any delay meant rapid deterioration, especially in hot weather, supplies had to be distributed as soon as possible after arrival, and there would be no time to collect together a large amount and then sort it out and divide it up carefully and systematically. The work necessarily proceeded in a rough and ready manner; the prevailing philosophy was one of good-humoured acquiescence; and butchers who got poor meat had to console themselves with the chance of better luck next time. Though complaints were common, there was no favouritism. East End and West End were alike in this, that both stood an equal chance of getting the best or the worst.

The Smithfield Control Board, which was the authority responsible to the Ministry of Food for directing these operations, consisted of ten of the ablest men in the trade, together with representatives of the Ministry, the retail butchers, and of Labour. The staff directly employed by the Board numbered about 1,500, and consisted of managers, salesmen, clerks, cutters, porters, and scalesmen. The heads of private firms whose services

were required became salaried officials, and the remainder temporarily retired from business. Smithfield thus became a huge non-profit-making trading concern guaranteed and supervised by the Food Controller, but operating autonomously like the Port of London Authority or the Metropolitan Water Board. Given the conditions that existed, and the assumption that all meat is alike for purposes of rationing, the new institution worked with surprising smoothness and regularity. Through its instrumentality queues were abolished, and the success of meat rationing was assured.

The Central Live Stock Fund

The effect of the Cattle (Sales) Order of December 24, 1917, was to make the Food Controller, through his agents the live-stock auctioneers, the sole purchaser of all cattle and sheep for slaughter, at a flat price per cwt. of meat that they were estimated to produce. He thereupon resold live stock or dead meat to butchers at a uniform price, sufficient to leave them a reasonable margin of profit on resale to the public at the legal maximum prices. Some of these butchers might be in the same village as the market where the beasts were sold; others would be in a distant town. But no matter where they were situated, or what were the actual costs of delivering the meat into their shops, they paid the same price and charged the same price to the public.

To make the flat-rate system possible, all the charges for handling meat from the farm to the butcher's shop had to be pooled and spread evenly over the total quantity of meat sold. For this purpose a national pool, called the Central Live Stock Fund, was established, into which was paid a fixed levy or 'per head charge' on every animal bought and sold, and out of which all intermediate charges were met. The administration of this Fund was in the hands of a Committee consisting of the Deputy Chairman of Barclay's Bank, as Chairman, the Chief Live Stock Commissioner, an administrative official and one representative each of the auctioneers, the wholesale and retail trade. The office of the Fund was manned by accountants and other staff appointed by the Ministry of Food.

When the Fund started operations in January 1918, the 'per

head charge' was fixed at 30s., and out of the proceeds were paid auctioneers' commissions, market expenses, and the cost of rail transport, if any, incurred by farmer and butcher. Later, when the system of free consignment notes was introduced, the cost of transport was met by lump sum payments to the Railway Executive instead of by separate repayments to butchers for every beast carried by rail. After calculations based on the average of the first few thousand applications for repayment of freight, the lump sum payment for the privilege of free carriage was fixed at £250,000 per annum.

When rationing was introduced, the Central Live Stock Fund extended its scope. It now became necessary to pool the cost of imported meat and to sell it at the same level of prices as home-produced meat. This course was taken partly owing to the ration being fixed by value and not by weight, and partly owing to the difficulties likely to arise if meat of practically identical quality had to be priced at different levels in the same shop. The cost of imported meats bore no relation to their quality. The cheapest came from Australia and New Zealand, with which the Government had made long term contracts to take the whole output—a course which saved the Dominion farmers from heavy losses when refrigerated tonnage had to be taken away from the long-distance routes. Argentine meat cost more than Colonial, but still left the Ministry a profit on resale at home prices. But as time went on, the concentration of shipping in the North Atlantic route rendered the Ministry more and more dependent on the United States, where prices showed a constant tendency to rise and soon reached a level which involved a loss on resale at the fixed prices in Great Britain. The profits and losses so incurred were paid into or charged against the Central Live Stock Fund. At first it was expected that the balance would be on the right side, but eventually it proved necessary to raise the domestic level of prices in order to meet an adverse balance. The liabilities of the Fund were also increased by throwing on to it a number of items in the cost of distribution which had not hitherto been covered. In addition to marketing expenses and rail transport, slaughter-house charges and the expenses and commission of Wholesale Meat Supply Associations were also borne on the

Fund. The average cost per beast for all these expenses was estimated at 43s. instead of the 30s. originally provided for.

The third factor which affected the solvency of the Fund was the decision to increase the prices paid to the farmers in the later months of 1918. It was foreseen that unless special steps were taken, farmers would tend to flood the markets in the autumn of 1918 and keep back as few animals as possible for slaughter in the early months of 1919, owing to the heavier expense of feeding them during the winter months. Normally this tendency is corrected by seasonal fluctuations in the market price of fat cattle, higher prices being realized from January to May than from July to December. In order to ensure as even a flow as possible, the Ministry therefore arranged for a gradual increase of price month by month during the winter, to be followed by a gradual fall in the summer and autumn of the following year. Continual changes, however, in the retail prices of meat, especially increases during the winter when meat is most needed, would have caused discontent, and would have interfered with the smooth working of the rationing scheme. It was therefore decided to average out these seasonal changes in farmers' prices by charging the losses and profits incurred to the Central Live Stock Fund.

The Central Live Stock Fund had thus three classes of liability: (i) expenses of distribution from the farmer to the butcher's shop; (ii) losses incurred on the sale of North American meat at less than cost price; and (iii) increased prices payable to the farmer during the winter months.

To meet these liabilities it had three sources of income: (i) the per head charge, which from March to September had been reduced to 10s. for cattle and 1s. 6d. for sheep; (ii) profits realized on the sale of Colonial and South American meat; (iii) miscellaneous profits from the sale of calves, offal, &c. By September 1918 the adverse balance met by subsidies from the Treasury amounted to about £2,000,000.

Up till then political considerations had been held to justify the principle of subsidizing meat prices; but by the autumn the success of rationing had been assured, and it was felt that there were no longer any overwhelming grounds, as in the case of bread, for continuing to sell at a loss. Retail prices were therefore

advanced on September 22 by an average of 2d. per lb. and corresponding increases were made in the per head charges. The increased charges remained in force until March 3, 1919, when the Fund had once again become solvent and it was possible to take off the increase of 2d. per lb. which had been imposed.

Live Stock from Ireland

One of the most important sources of supply was Ireland, and special arrangements had to be made to control the import of dead meat and cattle for slaughter. Eventually the Food Controller became the sole purchaser of Irish supplies, and by this means was able to regulate the amounts coming forward, and to distribute them among consuming centres according to a definite programme. Import was only permitted through authorized ports of entry, of which there were ten in number, Birkenhead, Fishguard, Bristol, Holyhead, Fleetwood, Heysham, Silloth, Ayr, Glasgow, and Mode Wheel, Manchester. Each of these ports was treated as a market and placed under the direction of a Chairman of the Port Market. The Grading Committee consisted of an expert valuer appointed by the Ministry of Food, a representative of the Irish farmers, and a representative nominated by the butchers who normally obtained their supplies from that particular port. The cost of delivery to the ports, including freight and insurance, was borne by the Live Stock Fund, and the prices paid were the same as those which the British farmer received. The bulk of the stock was forwarded by the Chairman of the Port Market to other live-stock markets in Great Britain, but supplies which had been consigned for sale on the dead weight basis might also be sent to a Government Authorized Slaughter-house. During the autumn of 1918, owing to the large number of beasts coming forward in British markets, it became necessary to restrict the number of cattle and sheep accepted at each port, and from time to time to close certain ports altogether.

Frozen Meat from Abroad

Before the war about 40 per cent. of the meat consumed in Great Britain was frozen or chilled meat imported from abroad.

The greater part went to London and other large towns, while country districts were fed almost exclusively on home-killed supplies. Under the rationing scheme frozen meat constituted an elastic reserve, which could be used to meet emergencies and smooth out the irregularities which were an inevitable feature of the home supply. In spite of the expedients adopted from time to time to ensure an even flow of cattle and sheep through the markets, the supply constantly fluctuated. Wholesale requisitioning when supplies were short, and drastic restriction of slaughter when supplies were abundant, were alike recognized to be impossible policies. Such a course would not only have outraged the farmers' sense of justice but would seriously have interfered with the normal sequence of operations on the farm. The flow therefore remained erratic, dependent on the state of the weather, the amount of fodder available, and the many other factors that might guide the farmers' choice. Apart from such influence as might be brought to bear by the farmers' own Selection Committees, they were left free to decide on what particular day to send cattle to market. To have attempted any systematic plan of rationing meat with nothing but home supplies to draw upon would have been practically impossible; and such experiments as were made in this country with the freezing of home-killed meat were not successful. It is not surprising, therefore, that meat rationing in continental countries was never a success. It was the existence of a frozen meat reserve that ensured its smooth working in Great Britain.

At times when stock was coming forward in small quantities, whole districts would be fed on frozen meat alone. London at one time was receiving over 95 per cent. of its supplies in the form of frozen meat. In other parts of the country foreign supplies were less readily accepted, especially since a large part of the North American imports were of a distinctly inferior quality. To avoid complaints of unfair distribution, it was found preferable to feed whole districts on frozen meat by turns rather than to divide up home-killed and frozen in the same proportion and send some of each. The latter system inevitably led to charges of favouritism against the butchers, who in that case had to decide which of his customers should receive the inferior quality. Under

the system adopted of supplying to each district frozen meat and home-killed by alternate fortnights, periods of universal complaint were followed by periods of general satisfaction.

When meat rationing started, the position with regard to imported meat gave cause for great anxiety. The whole output of Australia and New Zealand had been bought by the Board of Trade as early as October, 1914, the bulk of it being required for supplying the British and Allied armies. The Board of Trade had also bought for the armies 80 per cent. of the output of South American firms under an agreement which left them free to dispose of the remaining 20 per cent. as they liked for civilian consumption. The Ministry of Food, therefore, was only able to obtain for the civilian population the surplus of Australasian meat not required by the armies, 20 per cent. of the imports from South America, and any supplies which it could purchase elsewhere. The former was handed over by the Board of Trade at 10*d.* per lb., and an agreement was made with the South American firms, whereby they sold their meat to the Food Controller at 10½*d.* per lb. on condition that they should act as agents of the Ministry for its resale to the trade. Owing to the diversion of tonnage from the Australasian routes and its centralization in the Atlantic for the purpose of pouring American troops into France, the only way to make good the deficit was by large purchases of North American beef, which was bought by a Buying Mission in New York at prices fixed monthly by the United States Food Administration. These prices were high and the quality was often unsatisfactory; but the Food Controller's complaints on both scores were apt to be met by the rejoinder that he was lucky to get any supplies at all. The United States railways and ports were congested; there was no proper equipment for conducting a large export trade in frozen meat; and difficulties were experienced in securing the prompt loading and discharge of meat cargoes. But though much of the meat was inferior, and some of it had to be destroyed on arrival, large purchases in the United States were unavoidable, if the ration was to be maintained even at the low level of three-quarters of a pound a week.

CHAPTER XVI

OILS AND FATS

Meaning of term 'oils and fats' — Processes of manufacture — Sources of raw materials — Normal channels of trade — Margarine industry — Glycerine requirements — Intervention of Ministry of Munitions — Appointment of Controller — The 'Grand Committee' — Original scheme of control — Opposition of the trade — Licensing and Maximum Prices Orders, May 1917 — Statistics and research — Danger of fat shortage, July 1917 — Transfer of control to Ministry of Food — Preparations for State purchase of oilseeds — Problem of prices and distribution — Appointment of Advisory Committees — Growth of combination and corporate feeling.

AMONG the various war-time controls which sprang up in the spring of 1917 and developed from small beginnings into vast organizations directing the imports and exports of half the world, the Control of Oils and Fats occupies a special place. The wide range of commodities dealt with, the many different sources of supply in all parts of the world from which they were drawn, the variety of processes through which they passed, and the large number of trades dependent on the same basic materials, give it a kaleidoscopic character which baffles the inquirer. In the following account the complexities and technicalities of the oils and fats trades will as far as possible be avoided, and attention will be concentrated on certain features in the methods of control adopted, some of which were novel devices specially invented by the Oils and Fats Department.

The term 'oils and fats' covers vegetable oils obtained from oleaginous seeds, nuts, and kernels; fish oil and whale oil; and animal oils and fats obtained from the carcasses of cattle and sheep. The Oils and Fats Department of the Ministry of Food had nothing to do with mineral oils of any kind.

Omitting the rarer varieties which were of less importance during control, we have the following vegetable oils divided into edible and technical:

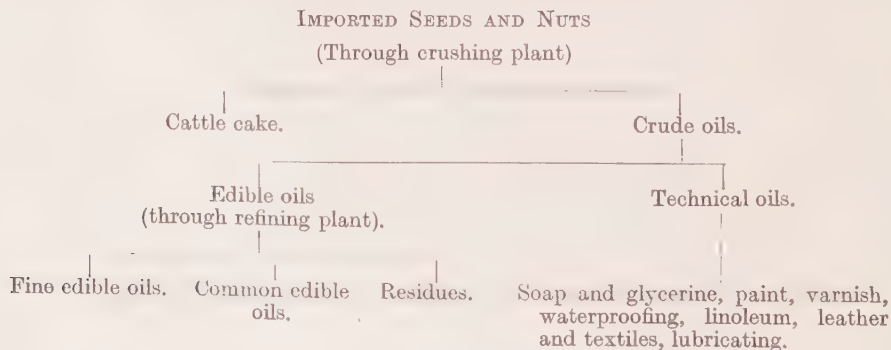
Edible oils
Palm-kernel oil
Ground-nut oil
Cotton-seed oil
Coco-nut oil
Olive oil
Soya oil

Technical oils
Palm oil
Linseed oil
Rape oil
Castor oil

The edible oils are used for the manufacture of margarine and for making 'compound' fats for fish frying and for cooking purposes. Of the technical oils, palm oil is used for soap making, castor oil for lubricating high-speed engines (during the war the whole output was taken by the Air Force), and linseed oil for a variety of purposes, of which the most important are the manufacture of linoleum, paint, and varnish.

Of the animal oils and fats, oleo and premier jus are used for margarine making; stearine and tallow for soap and candle making and for lubricating purposes; and whale oil, which was obtained in large quantities during the war, is useful for soap making and the production of glycerine, a by-product in the manufacture of soap and an essential ingredient of the propellant, nitro-glycerine.

Palm oil, olive oil, and coco-nut oil (obtained from copra—the fatty content of coco-nuts) are imported direct, but the bulk of the vegetable oils are obtained by extracting or expressing them from seeds and nuts imported into this country. The two processes of extraction and expression (the former by means of a solvent and the latter by hydraulic pressure) are carried on by oil and cake mills or crushing plants. The residue left after the crude oil has been removed is a valuable cattle food in the form of hard cake, or light meal. These oleaginous feeding stuffs are essential to the farmer for the production of meat, milk, butter, and cheese. The crude edible oils are passed to refineries which produce fine edible oils for margarine, common edible oil for fish frying, &c., and residues for the production of soap and glycerine. These processes may be represented by the following diagram:



The most important sources of supply for oleaginous seeds, nuts, and oils are West Africa, India, Egypt, Ceylon, the Pacific Islands, and the Argentine; animal fats come from the meat-exporting countries, North and South America, Australia and New Zealand. From West Africa come palm kernels, ground-nuts, and palm oil; linseed comes from India and the Argentine; coco-nut oil from Ceylon and the Pacific Islands; cotton seed from Egypt and India; rape seed and castor seed from India; soya beans from Manchuria; and olive oil from the Mediterranean. These are not the only sources—copra and ground-nuts, or, as they are sometimes called, pea-nuts, are found all over the tropics—but they were the most important and most accessible places from which supplies could be obtained during the war.

Practically no vegetable oils are obtained from home-produced seeds, though attempts were made to encourage the production of sunflowers for this purpose during the war. The amount yielded, however, was insignificant. Home-produced animal fats, especially dripping and tallow, are of importance, and necessitated special measures of control. This dependence of the oils and fats trades on imported materials in one sense simplified the problem of control. The number of firms engaged in import and manufacture ran into hundreds, but not into thousands; centralization was not therefore so formidable a task as in the control of agricultural products. Dependence on imports, on the other hand, and the variety of raw materials and sources of supply created special difficulties, which grew in complexity as the supply of tonnage available decreased.

The import trade falls into three main categories. Oil seeds, which are obtained principally from India and the Argentine, are closely linked up with the grain trade, being handled for the most part by large wheat importers. Animal fats and oils are an offshoot of the frozen meat business, and are sold in London and Liverpool by the large refrigerated meat companies. Nuts and kernels from West Africa are imported by the West African merchants, who have their head offices in Liverpool and do a general trade with the West African Colonies, exporting cotton goods and miscellaneous stores for the natives, and buying from them, often by barter, their nuts and oil and other produce. The

principal markets are at the three chief ports of entry, London, Liverpool, and Hull. The importers sell through brokers, who act as intermediaries between the importer and the manufacturer. There are also merchants, who act sometimes as brokers on commission, sometimes as dealers on their own account.

The war brought about many changes in the oils and fats trades, but none was more striking than the development of the margarine industry. In 1913 the weekly consumption of margarine was about 3,000 tons per week, of which about 1,500 tons were imported, chiefly from Holland and Denmark. The main raw materials employed came from British West Africa. Three-quarters of the West African output went to Germany, from which Holland obtained crude and refined oil, while less than one-sixth of the supplies were crushed in the United Kingdom. During the last year of the war the margarine industry was firmly established in Great Britain, and the whole of the West African output was crushed in British mills. By 1918 imports of margarine from Holland had ceased, and the British margarine industry was able to supply a weekly consumption of 5,000 tons per week. The following table shows the change brought about by the war :

EXPORTS OF PALM KERNELS FROM BRITISH WEST AFRICA

	1911	1912	1913	1914	1915	1916
United Kingdom .	35,411	37,554	35,175	74,797	233,249	241,000
Germany . .	189,131	193,019	181,305	} (figures not available)		
Holland . .	7,503	14,433	5,984			
France . .	714	768	1,938			

Early History of Control

Early in the war anxiety was felt in regard to supplies of glycerine. Owing to the preference shown by the military authorities for nitro-glycerine over nitro-cellulose as a propellant, larger quantities of glycerine were required than had ever been produced in this country before. The Ministry of Munitions accordingly prohibited dealings in glycerine, and made a contract with the soap manufacturers whereby they undertook to increase their production and to hand over the whole of their output at a fixed price of £54 per ton. This was the first step in the direction of State control of the trade.

Soon, however, owing to shipping losses, supplies of raw material for the soap trade became increasingly difficult to obtain, prices began to rise steeply, and soap manufacturers began to fall behind in their deliveries at the same time that military requirements were increasing by leaps and bounds. The Ministry of Munitions thereupon set up an Oils and Fats Branch of the Explosives Department for the purpose of regulating imports and exports, rationing raw materials and increasing to the utmost the output of glycerine. An Oils and Fats Controller was appointed, and a Grand Committee of traders was set up to act as an advisory body to the Controller. For the first few months prolonged discussions took place as to the right methods of control to adopt. The Grand Committee could come to no agreement; the interests of different sections of the trade were too divergent, and under any scheme proposed some seemed likely to gain while others would certainly lose. Amidst the clash of discordant voices the one proposal that met with general support was that matters should be allowed to continue as they were.

The Controller's original scheme was drawn up on drastic lines. Private trading, in the list of scheduled commodities, would be prohibited; the Government would purchase supplies of raw material in the countries of origin, and would distribute them to manufacturers through a limited number of Government brokers. The existing machinery of the trade would only be made use of to the extent that the Controller saw fit, and he was to exercise complete discretion as to the firms he might select to act as his agents.

This scheme aroused strong opposition in all sections of the trade. The majority of brokers and importing merchants saw that if it could be carried out they would lose the greater part of their business, while a few favoured firms would conduct the whole of the trade as Government agents. Manufacturers objected on the ground that they would be compelled to take whatever supplies were offered to them, and because they doubted whether a few firms could in fact carry on so highly complex and various a trade. But the chief objection was undoubtedly the feeling, which no Controller could afford to ignore, that all firms engaged in the trade should be treated with absolute impartiality. If

drastic measures were necessary, all alike should bear the burden ; that one man should have the right to pick and choose what firms to employ and how much trade they should do, was felt to be an excessive power for any one to wield and met with almost universal opposition.

In face of this opposition different methods were in fact adopted. On May 1, 1917, an Order was made requiring all traders to obtain licences to deal in oil seeds, oils and fats, and prohibiting dealings except under the conditions laid down in the licence. This was followed by an Order, on May 9, 1917, fixing maximum prices for all the principal commodities affected. The maximum prices were slightly above those at which trading was at the time taking place, and for a few months owing to the attention given to the increase of shipping facilities sufficient supplies were imported to keep prices slightly below this level. In the meantime the system of licensing dealings gave the Oils and Fats Department a mass of information about the trade and enabled it to watch developments and be prepared for more drastic measures in case the need should arise.

It was at this time that the foundations were laid of the elaborate statistical system which became later the most striking feature of Oils and Fats Control. The output and capacity of crushing plants, refining plants, and margarine factories, the estimated shipping programme, and the actual shipments month by month, the oil content of all the various seeds and nuts, and the percentage yield available for different purposes, the requirements of each consuming trade, and the most economical disposition of the products at each stage of transformation—these and a mass of other technical details were plotted out on charts and diagrams by the most exact and lucid methods of presentation. The oils and fats trade saw itself reflected as in a mirror. Never in the history of the trade had so many dark corners been illuminated, so many trade secrets been revealed to all ; for the information so set forth was accessible to all comers. Its message was clear for all to read. Supplies were beginning to dwindle, and if shipping losses continued at the rate at which they were then occurring the future was black.

In July 1917 the supply of glycerine still gave cause for

anxiety ; but in addition the position with regard to edible fats now began to look threatening. Margarine was still being imported from Holland, though every week emphasized the need of becoming self-supporting and the danger of depending on supplies from so uncertain a source. Butter was scarce and more margarine was wanted to replace it. Feeding stuffs were rising rapidly in price, and imported supplies were becoming more and more difficult to obtain. Shipping difficulties and uncertainty about the future were discouraging importers from bringing forward the normal quantities of seeds and nuts required. These considerations concerned the Food Controller rather than the Ministry of Munitions, and it was accordingly decided in July 1917 that the Oils and Fats Department should be transferred to the Ministry of Food. The need for a further extension of control had become apparent ; above all it was realized that without closer Government supervision of import and distribution the existence of maximum prices combined with tonnage difficulties would seriously jeopardize the food supply.

The first step taken by the Ministry of Food was to establish a separate section concerned with Oilseed Supply, and to prepare the ground for a general scheme of State purchase of imports which would meet with the approval of the trade. It was soon realized that methods that would be applicable to one commodity and to one section of the trade would not apply to all. The problem was attacked piecemeal, the simplest cases being disposed of first. In August negotiations were set on foot for the purchase of Egyptian cotton seed. Linseed, rape seed, and castor seed from India constituted a separate problem, which had to be settled with the India Office and the Government of India. Argentine linseed, which is dealt in by the large grain importers, was a matter for discussion with the Royal Commission on Wheat Supplies. And West African produce concerned the Colonial Office and the West African merchants. Several months were necessary for examining each of these separate problems, and it was long before the right policy to adopt in each case was finally settled. A fuller treatment of these problems will be found in the next chapter.

The next stage in chronological development was the search

for a system of centralized control in the distribution of raw materials and the regulation of prices at each stage. By September 1917 the full gravity of the shipping position had become apparent. Not only had the actual imports alarmingly decreased, but the outlook for the future was even worse. On instructions from the Cabinet the Food Controller was compelled to cut down his tonnage demands to the lowest possible level, and even to encroach upon the reserve stocks in the country. In these circumstances the strictest regulation had to be imposed on the use to which imported materials were put. All non-essential uses had to go, and a carefully balanced programme had to be drawn up based on the relative urgency and national importance of the rival claims for supplies.

The principal claimants were the margarine industry and the soap-making industry. But an endless variety of other miscellaneous trades was also affected. It was no longer possible to leave the distribution of oils and fats to private initiative. Even licences and priority certificates were insufficient to secure the exactitude which force of circumstances now rendered necessary. Furthermore, as the scarcity began to grow acute, first in one commodity and then in another, prices in nearly all cases reached the maximum, and it was seen that without some system of rationing to take the place of competitive bargaining distribution would completely break down. The time had come when the State was compelled to obtain physical possession of all available supplies, and to allocate them to manufacturers according to a deliberate plan.

The first step toward this end was the formation of a number of Advisory Committees, each representing one section of the trade, in place of the single Grand Committee, which had formerly existed. The most important of these were the Seed Crushers and Refiners Advisory Committee, the Oilseed Brokers Advisory Committee, the West African Merchants Advisory Committee, the Margarine Manufacturers Advisory Committee, and the Soap Manufacturers Advisory Committee. Among the advantages of separate committees were, first, that the members were able to speak freely in expressing their sectional points of view without arousing unnecessary controversy ; secondly, that the number of

representatives who were able to take an effective part in shaping policy was greater than before ; and thirdly, that each section of the trade tended through its Committee to develop a corporate feeling which greatly assisted control and ultimately promoted a greater sense of unity and interdependence in the trade as a whole. The plan of having separate Committees was not based on the precept *Divide et impera*. The object which the Ministry kept constantly to the forefront was to encourage unity and combination. But the unity was a matter of slow growth, and followed the lines of organic development rather than logical synthesis.

CHAPTER XVII

NEGOTIATIONS WITH CRUSHERS AND BROKERS

Investigations into costs of crushing and refining — New system of book-keeping introduced — Provisional 'margins' fixed — Problem of adjusting maximum prices for seed, oil, and cake — Variations in cost between different firms — The 'marginal' and the average cost — The principle of a common pool — Discussion of plans for pooling — Scheme for a Crushers' Combine rejected — Profit equalization scheme — Transit pool — New margins agreed, November 1917 — Adjustment of maximum prices — Requisition of seeds, nuts, and kernels, and of oils, oilcake, and meals — Difference between old and new prices debited to holders of stock.

Arrangements for distribution — Employment of brokers — Formation of United Kingdom Oilseeds Brokers Association as sole Government agents — Allocation of work and remuneration among members — Smooth working of commercial side of distribution.

THE policy which now had to be worked out was the fixing of prices at each stage in the process of manufacture. The first step was to ascertain the cost of production. For this purpose the Costings Department of the Ministry of Food made exhaustive inquiries into the figures submitted by crushers, refiners, and margarine manufacturers, and issued instructions to District Supervising Accountants to inspect the books of certain selected firms.¹ Investigations were conducted into the average cost of crushing palm kernels, ground-nuts, cotton seed, and linseed, and for this purpose figures were obtained for the last three pre-war years and for the last two completed financial years. Similar inquiries were made into the cost of refining. By this means figures were obtained which gave for a number of firms the average cost per ton of crushing and other general charges, the average yield and selling price of the oil, cake, and meal obtained from each ton of seed, and the net profit per ton of seed crushed. The conclusions arrived at then formed the basis of detailed discussion and examination with the Crushers Advisory Committee.

At a series of meetings held in September 1917, the preliminary results revealed a wide range of differences and a large possible margin of error owing to the diverse methods of book-keeping

¹ See Appendix 13.

employed. The Committee thereupon agreed that the Costings Department should devise a uniform system of book-keeping, and instruct each crusher, extractor, and refiner how his books should be kept for a period of three months from October 1 to December 31, 1917, so that the costs of each should be readily compared. Each firm would take stock at the close of business on September 30 and again at the close of business on December 31, and accounts in the required form were to be ready for inspection by the Costings Department's District Supervising Accountants not later than January 31, 1918.

The Committee also agreed to recommend that each firm should work for a fixed margin to cover the cost of crushing, extracting, or refining together with a reasonable profit. In the case of crushing or extracting, the term 'margin' was defined to mean a stated sum of money per ton of seed which when added to the net cost of a ton of seed (bags not included) ex ship or free on rail at the port where the crushing or extracting mill was situated, would represent the selling price of the resultant oil and cake. Similarly in the case of refining the 'margin' meant the amount which, when added to the net cost of a ton of crude oil ex ship or free on rail at the port where the refinery was situated, would represent the selling price of one ton of refined oil at the refinery.

At this point difficulties began to arise. The Committee had agreed to the general principle that prices should be fixed so as to leave manufacturers a margin sufficient to cover the actual cost and allow a reasonable amount of profit. Hitherto maximum prices had been fixed by Order of the Ministry of Munitions for seeds and kernels on the one hand and for crude oil and refined oils on the other. But since the Order had been issued for the purpose of checking further increases rather than for fixing reasonable margins (which was impossible before detailed examination of costs had taken place), the differences between the three sets of figures yielded an excessive margin both to crushers and to refiners. If the margins were now to be reduced so as to yield only a reasonable amount of profit, the maximum prices hitherto ruling would have to be altered and complicated readjustments would have to take place. If the price of seeds remained the

same, either the prices of both crude oil and cakes would have to be reduced ; or if crude oil remained the same, the whole reduction could be made on cakes ; or vice versa, if cakes remained the same, the whole reduction could come off the price of crude oil. In any case, whether crude oil was reduced or remained the same, the level of refined oil prices would have to be adjusted to yield the agreed margin.

Such wholesale readjustments were to be avoided if possible. One serious objection was that any alteration would seem to involve either making a present of unearned profit or paying compensation for loss to holders of stocks. On the other hand, it had been clearly demonstrated and was admitted on all sides that excessive profits were being made in the processes of transformation from the raw materials to the finished articles. It was the Food Controller's business to stop profiteering, and he had publicly promised to reduce prices wherever possible by basing them on costs of production and a reasonable margin of profit. For several weeks the Oils and Fats Department and its technical advisers wrestled with the problem how best this might be accomplished.

One other complication, which is common to all schemes of price control, arose in considering the basis on which the agreed margins should be fixed. Should these be based on the costs of the most economical unit of production, on the most uneconomical, or on the average ? Inevitably, when maximum prices were imposed and margins were fixed with reference to actual cost of production, the tendency was for prices to be based on the costs of the least economical producer. But if the price fixed was to be sufficient to give the highest-cost producer a reasonable profit, the majority working under average conditions would get more than a reasonable profit, and the most efficient would obtain an altogether excessive return. True, according to the ' marginal theory ' this is what happens under normal conditions. In a free market prices are supposed to be determined, on the side of supply, by the cost of production of the ' marginal ' producer.

Such a solution, however, though it might represent an advantage to the consumer compared with the absence of all regulation, was hardly consistent with declarations about the

abolition of profiteering; for it expressly recognized the right of the majority to take more than a reasonable profit. In the present case the Advisory Committee admitted, in principle, that the margins should be calculated to allow a reasonable profit to firms working under average conditions. Smaller and less efficient mills, or firms unfavourably situated for transport purposes, were to have the right of appeal to the Oils and Fats Department, and if at the end of the experimental period the Costings Department should find from the new method of book-keeping that, from causes beyond their control, such firms had incurred a loss, they were to be entitled to special consideration. If, however, firms who fell below the average were to receive compensation, it was only natural for the Ministry to argue that firms who made larger profits than the average, owing to circumstances for which they were not reasonably entitled to claim special credit, should be called upon to hand back part of the surplus.

The discussion thus came to revolve round the vexed question of a common pool, to which debits and credits would be made according as individual firms fell below or exceeded the average. As a special device to meet the exceptional conditions of war time, the Advisory Committee reluctantly assented to the adoption of this principle, if the Ministry could arrange a satisfactory method of carrying it out. If it was to be successful, the procedure would clearly have to be applied universally. But had the Food Controller any power to enforce a pooling system by Order? If not, was there any prospect of obtaining the voluntary assent of the whole trade? These questions were exhaustively explored and debated during October and November of 1917.

The simplest and most satisfactory scheme, which commended itself at first to the Ministry, was to get the crushers and refiners to form a single Association or Combine. The Ministry would then make a contract with the Association whereby it would undertake to crush the oilseeds supplied to it, and refine the resultant oils, for fixed margins, the Association being responsible for the distribution of the materials among its members, for seeing that they were handled in the most economical fashion, and arranging some system of pooling expenses and profit. The fixed margins paid to the Association would be based on the average cost of crushing

and refining ; the Ministry might also grant an additional allowance to cover extra cost of transport in the event of cargoes being discharged, owing to diversion of steamers, at less convenient ports. One great advantage of such a scheme would have been that the trade itself would have had to settle the troublesome question of deciding to what extent each firm should be employed in the event of supplies becoming seriously restricted, as they seemed likely to become in view of the growing scarcity of tonnage. The most economical course in such circumstances would have been to keep the most efficient mills running to their full capacity and to close some of the less efficient. By this means costs would be kept much lower than if all the factories were cut down in the same proportion ; and if the Association received a margin sufficient to cover the cost based on a normal turnover, the profits to be divided among the individual firms would be so much the greater. That is to say, it would pay the Association to close some factories altogether and compensate them for loss of business out of the pool.

This proposal proved too ambitious and far-reaching to command general support ; and so long as any firm stood out it was impossible to put it into force. The chief opposition naturally came from some of the larger firms, who were favourably situated and had efficient and up-to-date machinery.

Meanwhile, an alternative scheme aiming at similar objects but more limited in scope, was put forward by a member of the Advisory Committee who was a Director of one of the largest crushing firms. This was called the Profit Equalization Scheme. The object was to enable seeds to be crushed in the particular mills and ports where it was most economically advantageous, without giving any individual firm any undue advantage from the accident of being fortunately situated, and in consequence receiving a disproportionately large allocation of seed. A profits pool would be established into which would be paid all the profits derived from crushing seed beyond an agreed proportion of each firm's capacity, and part of the profits obtained by the saving in standing charges where such ' excess crush ' was arranged. Out of it fair compensation would be paid to mills which were either shut down or compelled to reduce output. The economies

which the scheme would render possible would be : (1) that seed would be crushed as near as possible to the port of arrival ; (2) that each class of seed would be handled in the mills best adapted for the purpose ; (3) that the most efficient factories would so far as possible be run full time while the least efficient would be closed down ; (4) that transport would be reduced to a minimum ; and (5) that the manufactured products would be distributed over the country in accordance with the most economical and convenient plan, having regard to the use to which they would be put. The management of the profits pool and the allocation of seeds was to be in the hands of the existing Seed Crushers and Refiners Committee, with a right of appeal to the Director of Oils and Fats at the Ministry of Food. The finance of the pool would be guaranteed by the Government, which would be entitled to take any surplus remaining at the end of control. Accounts would be settled every six months.

This proposal, unlike the Ministry's plan for a combination of the whole trade, met with the approval of the majority, but again it broke down owing to the refusal of a few of the largest firms to accept the principle of pooling in any form.

The margins formerly agreed upon, which carried with them the right of adjustment every three months, and a guarantee of a supply of seeds equal to 63 per cent. of the pre-war turnover of each mill, had allowed for an assumed profit of about 5s. per ton. When the scheme for a pool broke down, new margins were adopted which increased the assumed profit to 10s. per ton, but made no provision for an adjustment of accounts or a guarantee of seed supply. An arrangement was, however, made for a Transit Pool, under which every crusher contributed 15s. per ton on all seed received during each month, and received out of the pool each month his actual expenses on transit of seed from the port to the mill door. This plan was rendered all the more necessary by the action of the Admiralty in diverting steamers from the East Coast to West Coast ports, whereas in normal times large imports are received at Hull, and many important crushing mills are situated there.

The margins as finally agreed upon towards the end of November 1917 were communicated to all crushers on the

29th November. They varied from £2 5s. per ton for linseed to £3 10s. per ton for palm kernels. It was stated that these margins would be subject to revision at a later date.

It is now necessary to return to the problem of so adjusting prices that the crusher would obtain these margins and no more. Bound up with this problem was the necessity, which every week rendered more urgent, of obtaining power to direct seeds, oils, and cakes where they were most required in accordance with a programme based on a survey of the whole position. These two objects were accomplished by Orders made by the Food Controller under the Defence of the Realm Regulations dated the 28th November 1917 ; the Seeds, Nuts, and Kernels (Requisition) Order, 1917, and the Oils, Oil Cakes, and Meals (Requisition) Order, 1917.

Under the first Order the Food Controller took possession of all seeds, nuts, and kernels mentioned in the Schedule which were in the United Kingdom on December 1, with the exception of amounts not exceeding 5 tons. Seeds, nuts, and kernels arriving in the United Kingdom after that date were to be placed at his disposal and delivered to him or to his order. Persons concerned were also required to give full information as to stocks held, shipments expected, and quantities sold and unsold in each case.

Under the second Order the Food Controller exercised his power under Regulation 7 to require seed crushers and extractors to place at his disposal and deliver to him or to his order the crude oils, oil cakes, meals, and residues produced at their factories.

These two Orders gave the Oils and Fats Department for the first time complete control over these commodities in the United Kingdom, and power to direct their distribution and use as might be thought advisable. They also indirectly enabled the price problem to be solved. It will be noticed that the Order requisitioning seeds, nuts, and kernels is of the widest description. All holders, except those who held not more than 5 tons, were required to hand over their stocks to the Food Controller. The raw materials in manufacturers' hands, as well as merchants' stocks, were requisitioned. The explanation is to be found in a circular letter dated November 29, 1917, which was sent to all

crushers, enclosing copies of the Orders, and giving instructions as to the procedure to be followed.¹

The letter explained that under the Order requisitioning their output the crushers were entitled, in default of agreement, to receive a price based on the cost of production and a normal pre-war rate of profit. An agreement had been reached with the Crushers and Refiners Advisory Committee that they should receive the margins set out in the schedule. In order to provide this agreed margin it was necessary to readjust the prices of oilseeds, nuts, and kernels so as to make them correspond with the maximum prices of oils, oil cakes, and meals. The Food Controller had therefore taken possession of all oilseeds, nuts and kernels in the United Kingdom, including the stocks held by crushers and extractors as on December 1, 1917, and proposed to release them to manufacturers on payment of the difference between the existing maximum prices and the readjusted prices which would shortly be announced.

In the case of raw materials held by crushers, this meant that the Food Controller requisitioned them at the existing level of prices and then handed them back to their previous owners on payment of the difference between the old and the new level of fixed prices. By this drastic and novel procedure (for which it would be difficult to find parallels in other controls) all existing holders, including manufacturers, were prevented from realizing any unearned increment from the increase in the level of maximum prices. It was some time before the Ministry succeeded in extracting the difference from all the firms in the trade. The fairness of the step was generally admitted, and eventually even the recalcitrant firms paid up under protest. The payments were credited to the Oils and Fats Trading Account—a financial pool serving for Oils and Fats control a similar purpose to the Central Live Stock Fund under the meat scheme.

Distribution

The requisition of seeds, nuts, and kernels in merchants' and shippers' hands, and of all supplies imported after December 1 involved the creation of machinery for distribution. This could

¹ See Appendix 11.

only be done by employing on agency terms the firms already engaged in the trade. The exact arrangements to be made had been discussed in advance with the Oilseed Brokers Advisory Committee, and by the time the Order was issued the plan of action was ready to put into immediate operation.

The numbers of brokers acting as intermediaries between importers and manufacturers, and operating on the principal oil and seed markets at London, Liverpool, and Hull, was about two hundred. To appoint each individual firm a Government agent, to determine how the work should be divided up between them, and to give detailed instructions day by day as to their operations was beyond the capacity of a small staff in Whitehall. It would have involved first, the appointment of whole-time supervisors in each district (similar to the District Executive Officers appointed to supervise wool merchants under the British wool purchase scheme); secondly, careful inquiries as to each firm's reliability, financial standing, and usual trade; and thirdly, endless disputes, appeals, and arbitrary adjudications on the demarcation of each firm's business. No one would have been satisfied, and a great deal of extra work would have fallen on the Oils and Fats Department.

A solution of this difficulty was found in the creation of an Association, similar in constitution and objects to the Wholesale Meat Supply Associations, which were being formed about the same time. The name of the new body was the United Kingdom Oilseed Brokers Association. Every broker, as a condition of his licence to deal in oilseeds, oils, and fats, was required to join the Association. The Oilseed Brokers Association then became the sole Government agent authorized to deal in oleaginous produce. Its functions were to handle the documents relating to stocks of oilseeds requisitioned in merchants' hands or on arrival; to see to the discharge of cargoes; to inspect the goods and deal with questions of quality; to arrange the necessary allowances in accordance with the usual trade customs; and to make payments to the holders and collect the proceeds of sale from the firms to whom the goods were allotted. The usual trade terms were for payment within fourteen days. The Association, or rather its members, arranged to finance transactions on behalf

of the Government and render an account of purchases and sales at regular periods. As remuneration the Association received a half per cent. on the value of all goods passing through its hands. The Association accepted liability for the integrity of its members, and was required to put up a guarantee fund of a quarter of a million pounds invested in Treasury bills and deposited to the order of the Food Controller.

It is interesting to note how the Association settled the problem of allocating work. After ascertaining the views of its members, the governing body decided to give up all idea of regimentation and strict division of labour. Each member firm was allowed to compete as before for the patronage of its clients, the manufacturers. Which actual firm should be employed for handling any particular lot of goods was decided not by the Government or by the Association, but by the manufacturer to whom the goods were allotted. Each member was thus able to maintain his usual trade connexion, so far as his clientèle was willing. On the other hand, he gained no immediate advantage from increasing the number of his customers ; for the brokerage on every transaction went not to the member firm but to the Association. Each member's share of the Association's receipts was fixed at an agreed proportion based on figures of pre-war turnover, and bore no reference to the amount of business actually conducted under control. Some brokers found this sufficient reason for doing as little as possible, since they were sure of a comfortable income in any case ; but others, more far-sighted, took on as much as they could possibly undertake, with a view to building up goodwill and useful connexions for the period after control was ended.

The formation of this Association, which met with general approval and support (given the necessity for Government control at all), and the smooth and efficient manner in which its leading officials conducted its business, solved some of the most difficult administrative problems which the Oils and Fats Department had to face. The commercial side of Oils and Fats distribution henceforth ran with surprisingly little difficulty. Attention must now be turned to the purchase of supplies from abroad and the development of Inter-Allied co-operation in buying.

CHAPTER XVIII

OILSEEDS SUPPLY AND THE INTER-ALLIED OILSEEDS EXECUTIVE

Inter-departmental conferences on oilseeds supply, August 1917 — Proposal to centralize purchases and shipping arrangements — Negotiations with French Minister of Commerce — French demand for pooling resources — Finance and shipping dealt with separately — Terms of agreement constituting Inter-Allied Oilseeds Executive — Not a joint trading corporation.

Machinery of purchase — Purchases made f.o.b. not c.i.f. — Reasons for this — Methods of purchase varied — Co-operation of Governments in British Dominions and Possessions — Egyptian cotton seed — Terms of purchase — Appointment of Cotton Seed Control Board at Alexandria — Coco-nut oil from Ceylon — Linseed, rape seed, and castor seed from India — Argentine linseed — Animal fats from South America, Australia, and New Zealand — Purchases in U.S.A. — Whale oil — Olive oil — West African oleaginous products obtained by purchase c.i.f. — Ministry of Food's monopoly of import — Tonnage Programme 1917-18 and 1918-19.

THE considerations that led to the gradual extension of State purchase of imported oilseeds, oils, and fats were, on the one hand, a desire to keep prices as low as possible, and on the other hand the necessity of arranging an exact programme of imports with the Ministry of Shipping. In August 1917 conferences were held between representatives of the Ministry of Food, Ministry of Shipping, Foreign Office, Board of Trade, India Office, and Colonial Office to consider the advisability of extending to oilseeds the same procedure as that which had been applied to the purchase of cereals. The chief features of the control of cereals by the Royal Commission on Wheat Supplies were, first, monopoly of import on Government account; second, purchase in the country of origin or port of shipment; third, co-operation between the Allies to avoid competitive buying; and fourth, a joint shipping programme and centralized arrangements for chartering, loading, and movement of tonnage. By this means supplies were obtained according to a definite programme of requirements, prices were kept as low as possible, and the most economical use was made of the gradually decreasing volume of tonnage.

In principle it was agreed that there would be similar advan-

tages if the same system was applied to oilseeds, oils, and fats. One attempt had already been made under the auspices of the Ministry of Munitions to centralize imports; but the difficulties had been under-estimated. There were many different interests that had to be reconciled to a course that was bound to deprive them of their freedom and a large measure of profit. The import of oilseeds, oils, and fats was not one trade but many. The number of different commodities involved was greater than those handled by the Wheat Commission, and the sources of supply were scattered all over the world. India, the Dominions, the Crown Colonies, and Egypt were all interested in selling their produce on the most favourable terms, and before arrangements for taking the trade out of private hands were put into force the India Office and the Colonial Office would have to consult the Dominions and Colonies and obtain their consent. The administrative difficulties of drawing up and executing a programme of purchase and shipment of so wide a variety of articles in so many different countries, according to a definite time-table to suit the requirements of the Ministry of Shipping, were likely to prove extremely onerous. Lastly, to attempt to centralize purchases and shipping arrangements, not only for the United Kingdom, but for France and Italy as well, seemed likely to multiply these difficulties to such an extent as to render the plan unworkable. It was agreed, however, that this was the right line of development to pursue, that the shipping situation was rapidly making it imperative, and that, though progress would necessarily be slow, a beginning should be made at once.

The Allies by this time needed no pressure to induce them to pursue a policy of co-operation, but were themselves anxious to press forward in this direction with all possible speed. Important negotiations took place with the French Minister of Commerce during his visit to London in August 1917.

The economic situation of France was at that time very serious. The delegates of the French Government urged that only a complete pooling of resources among the Allies would enable them to put forth their full strength, and that unitary command was necessary not only at the front but in the sphere of commerce, shipping, and finance. This meant that Great

Britain was asked to render much greater assistance to France than she had in the past. Hitherto assistance had been given without stint, so far as essential military requirements were concerned; but the needs of the civilian population and the maintenance of French industries were not regarded as falling within the same category. It was true that French trade and industry had suffered much more from the war conditions apart altogether from the crippling effects of the invasion in the North of France. This was largely due to the insufficiency of the French mercantile marine to meet the needs of French industry. Great Britain, however, was already feeling the pinch more and more every month, and any further assistance to France could only be given at the cost of still heavier sacrifices. The British Government was not therefore in a position to agree to the whole of the French demand; but the need for maintaining Allied unity and the risk of serious collapse rendered very considerable concessions inevitable. One incidental advantage of great importance financially to Great Britain was that closer co-operation rendered it possible to insist on joint buying, and thereby to stop the forcing up of prices through the Allies competing against one another.

After protracted discussions this policy bore fruit in further concessions in regard to finance and shipping, and in the formation of two Inter-Allied bodies modelled on the already existing Inter-Allied Wheat Executive. These bodies were the Oilseeds Executive and the Meat and Fats Executive.

The Memorandum of Agreement which defines the constitution and functions of the Oilseeds Executive is given in Appendix 12. The Executive was set up 'for the purpose of controlling the purchase and supply of oleaginous nuts, seeds, and kernels, and of vegetable oils and fats, of co-ordinating control of selling prices in the United Kingdom and France, of allocating them in agreed proportions between the two countries, and of selling them to third parties Allied and neutral'. The other clauses may be summarized as follows:

The Executive was to consist of an equal number of representatives of each country, and, subject to the authority of the respective Governments, was to have full power to act on their

behalf. A programme of requirements was to be drawn up, and the proportion of the total supplies that each Ally was entitled to receive was called that Ally's 'ascertained proportion'. These ascertained proportions were to be the basis on which supplies were to be allocated, but they might be varied from time to time by mutual consent, having regard to the stocks held in each country, the relative urgency of their needs, and the amount of tonnage at their disposal. Where purchases were made jointly, the cost in the country of origin would be averaged, and each Ally would pay for its share on the basis of the average cost. 'The principle of sharing profits and losses on the basis of prices f.o.b. in the port of shipment was accepted, subject to satisfactory financial arrangements being concluded between the financial authorities of the two countries. (The French proposal that the cost of insurance and freight should also be pooled was rejected.) The Oilseeds Executive was to have no voice in the allocation of tonnage and finance, which remained matters for the respective Ministries of Shipping and Finance. Subject to any general agreement as to shipping and finance (no general pooling agreement was ever concluded in these vital services), payment for and shipment of the supplies obtained for each Ally were to be undertaken by that Ally. This requirement was rendered more precise by a clause which provided that where, by arrangement with the Oilseeds Executive, the British Government made purchases on behalf of France, the necessary funds must be supplied by the French Government before the purchase was made; in the case of purchases in Canada and the United States, the French Government had to put up the dollars.

The agreement in its final form left the Executive rather a consultative than an executive body. It deliberated and made decisions, but it did not carry them out, still less did it have any authority to enforce decisions. It did not, in fact, make purchases or contracts in its own name, for though proposals were made from time to time that the Executives should be run as financial partnerships or Governmental joint-stock companies, they never had any joint funds at their disposal. The financial provisions, whereby each Ally paid for its supplies as soon as they were purchased, meant that the actual purchaser was in all cases one

or other of the Governments and not the Executive as a corporate body in itself. The great importance of the agreement was that it established the principle of co-operative buying, according to a common plan drawn up and agreed upon by both parties, and provided the necessary machinery for securing the continuous and intimate discussion without which this principle could not have been carried out. It is doubtful whether the more ambitious scheme for an Inter-Governmental Trading Corporation would have had any greater advantages. But in any case it could never have been carried out without admitting the principle of financial partnership, which the respective Treasuries were not prepared to adopt.

Machinery for purchase of oilseeds, oils, and fats

In normal times the usual procedure for obtaining oilseeds, oils, and fats from abroad is for the large importers or shippers to buy them at local markets in the country of origin and sell them c.i.f. (that is at a price including cost, insurance, and freight) at one of the produce markets in the United Kingdom. During the war the Government rarely bought c.i.f. Wherever possible it either purchased through agents in the interior of the country of origin, or more commonly f.o.b. (that is at a price covering all expenses up to the point of delivery 'free on board' ship). The reasons for this were connected with the shortage of shipping and the difficulties of finding foreign exchange. In 1917 the tonnage scarcity had become so pronounced that the Ministry of Shipping was compelled to requisition practically the whole of the British mercantile marine, and to control in the minutest fashion the uses for which tonnage was provided and the commodities which could be transported. Throughout the war the Government paid for requisitioned tonnage on the basis of Blue Book rates, that is, the rates originally agreed upon between the Admiralty and shipowners and embodied in the famous Blue Book. The private shipper found it increasingly difficult to obtain shipping space, and then only at extremely high rates of freight. If essential raw materials like oilseeds were to be imported in sufficient quantities, special facilities had to be obtained from the Ministry of Shipping. A regular import programme had to be drawn up, the date and

port of shipment for each cargo had to be arranged weeks beforehand, and purchases had to be made at the right time to fit in with the arrival of the ship allotted. Except in certain special trades, this co-ordination was only possible if there was one buyer in the country of origin. The exact method employed could vary according to circumstances ; but the essential condition was that the Ministry of Shipping should be able to find out precisely what cargoes had to be lifted and count on them being ready according to programme.

From the financial standpoint Government purchase became no less important owing to the increasing difficulties of the foreign exchange situation. In the United States, Canada, Argentine, and India sterling was heavily depreciated partly owing to the excess of imports over exports to those countries. Every unnecessary purchase added to the adverse trade balance, increased Great Britain's indebtedness, and absorbed part of the ever-diminishing resources required for financing the import of essential commodities. Purchases on a c.i.f. basis from private importers tended to depreciate the exchange, and rendered it more difficult to carry out the Treasury policy of 'pegging the exchange' and rationing the use of foreign credits. Co-ordination of purchases, both as to time and place, with the Treasury's financial programme necessitated buying on a f.o.b. basis. Purchases could then be made only after the Treasury's approval had been obtained, and the necessary foreign funds had been secured and earmarked for the purpose.

The methods followed in each case were determined by the degree to which it was possible to influence the policy of the Government in the country of origin. In the British Dominions and Possessions the first step in the direction of control was prohibition of export except to the United Kingdom and to the Allies. In the case of oilseeds this step had been taken early in the war as a means of preventing supplies reaching the enemy through neutral countries. Later on it became a valuable means to enable the British Government to obtain supplies at a reasonable price. In Australia and New Zealand the Dominion Governments generally acted as the purchasing agent of the Imperial Government. In British possessions and protectorates prohibition of export enabled the whole exportable surplus to be

purchased at fixed prices. Outside the British Empire supplies had to be obtained in the local markets, often in competition with neutral buyers. In the United States supplies could only be obtained with the approval of the United States Food Administration and at prices agreed by them.

Egyptian cotton seed was the first oilseed to be purchased by the Ministry of Food. In August 1917 telegraphic negotiations took place through the Foreign Office with the Egyptian Government. Export was prohibited by Khedival Decree, and the British Government undertook to purchase all the cotton seed delivered at Alexandria during the coming year at a fixed price of £9 per ton f.o.b. The Egyptian Government appointed a Cotton Seed Control Board, consisting of influential men familiar with the trade, to act as the agents of the British Government, and to make all arrangements for inspection, payment, warehousing, and shipment. The financing of purchases was arranged through the National Bank of Egypt. On receipt of a guarantee from the British Treasury the Bank advanced the funds necessary for payment in Alexandria, and was repaid in sterling with 5 per cent. interest in respect of each consignment of seed after it had arrived in the United Kingdom and had been sold to a crusher. The amounts due were collected from the crushers and paid into the National Bank of Egypt by the United Kingdom Oilseed Brokers Association acting as agents for the Ministry of Food. The work of the Ministry of Food was thus reduced to the minimum. The Ministry of Shipping agreed to allocate 15,000 tons of shipping space per month to carry seed from Alexandria, this amount to have first-class priority. Instructions were given to the Shipping Conference of the Malta and Alexandria Steamship Companies to carry out this monthly programme, the allocation of space in each individual steamer being left to the discretion of the steamship companies concerned. One of the first tasks of the Ministry was to order half a million jute bags from India through the War Office Jute Goods Depot for the use of the Cotton Seed Control Board in shipping the seed.

Purchases of coco-nut oil were made in the Straits Settlements and in Ceylon by the Governor, acting as agent of the British Government. The oil was bought from the local crushing mills

at prices ruling in local markets. The Oilseeds Branch had to take special steps to see that second-hand casks and containers were returned to the colonies, since war conditions had interfered with the supply of new casks.

Linseed, rape seed, and castor seed were bought in India through the principal firms normally engaged in the trade. The Ministry authorized them to buy from time to time up to a certain quantity within certain limits of price. The agent firms bought from native dealers at prices ruling in the interior and resold to the Ministry of Food at prices including delivery f.o.b. In Egypt the exportable surplus of cotton seed constituted far the greater part of the production. The fixing of a guaranteed price f.o.b. therefore determined the level of prices. In India the amount of oilseeds shipped abroad was so small a proportion of the total crops that this was impossible; but the level of prices in the interior could be regulated to some extent by judicious buying and by keeping off the market when prices rose and increasing purchases when they fell. But the buying programme was always dominated by the necessities imposed by the shipping programme. Ships were liable to arrive unexpectedly. If no cargo was available at the right time, the opportunity for shipment was lost; the steamer would take another cargo or go off half full to fetch one elsewhere.

Linseed from the Argentine was bought f.o.b. through the Wheat Commission's agents. These were the large grain importers with head offices in London and branches in the Argentine, who were in the habit of shipping linseed in normal times. Their operations were supervised by the Wheat Commission's resident Commissioner in South America, who received buying instructions from the Ministry of Food in London. Purchases were financed by the Treasury out of special credits raised in the Argentine. There was no prohibition of export, with the result that competition from the United States and neutral countries forced prices up considerably above the level ruling in India. So far as possible the Ministry tried to avoid buying in the Argentine, but it was impossible to obtain all that was required in India; and from the shipping point of view it was preferable to buy in the Argentine because the distance was shorter.

The animal fats, premier jus and tallow, were also bought f.o.b. at market prices ruling from time to time in the Argentine from the British importers normally engaged in the trade. Tallow from Australia or New Zealand was either purchased on behalf of the Ministry by the Dominion or State Government concerned or it was granted shipping space by the Ministry and requisitioned on arrival from the usual shippers.

Purchases in the United States were confined to cotton oil, oleo, and stearine. These were bought f.o.b. New York by the Ministry of Food's Buying Mission in New York at market prices approved by the United States Food Administration. Purchases were reduced to the minimum owing to the very high level which prices had reached in the United States market. Again, however, there was the conflict between financial and transport considerations. New York was the most economical source of supply from the point of view of shipping.

Whale oil, which was bought in large quantities to supply the soap and glycerine industry, was obtained on favourable terms from the Falkland Islands. The whaling industry is conducted by Norwegian firms in the territorial waters adjoining the Falkland Islands and other British possessions in the South Atlantic. The whole supply of whale oil produced by these firms was purchased at fixed prices f.o.b. Olive oil was bought at local prices through the British Consul in Tunis.

The only important supplies obtained on a c.i.f. basis were palm kernels, palm oil, and ground-nuts from West Africa. No difficulties of exchange existed, since West African merchants acted both as importers and exporters and thus themselves regulated the balance of trade. To a large extent the native produce was obtained by barter and not by cash payments. Export of oleaginous products was prohibited from British West African Colonies except to the United Kingdom and certain Allied countries. Maximum prices were fixed under the Seeds, Nuts, and Kernels (Requisition) Order for palm kernels and ground-nuts, and under the Oils and Fats (Requisition) Order for palm oil. Tonnage was provided according to a programme drawn up in agreement with the Ministry of Shipping, the details of shipment being left to the West African merchants and the steamship

companies to settle between them. The requisition prices allowed for a fixed rate of freight and a moderate profit to the importer.

By August 1918, with the exception of West African products, which were taken over at fixed prices on arrival, no oilseeds, oils, or fats were being imported on private account. No legal prohibition of import was imposed, but since all the tonnage available was allocated only to the Ministry of Food, private importers could get no shipping space. With the exception of cotton oil, oleo, and stearine, which were obtained in the United States, the supplies were purchased at prices which were distinctly favourable to Great Britain. This was due partly to concentration of purchase in the hands of a single buyer, partly to the scarcity of tonnage which left local supplies in the country of origin relatively abundant, but also in a large degree to the fact that the various parts of the Empire from which the bulk of supplies were drawn regarded the preferential treatment of British and Allied requirements as part of their war contribution.

The tonnage programme

The following were the quantities of tonnage estimated to provide the minimum essential requirements of margarine, edible oils and fats, glycerine, and technical oils during the years 1917-18 and 1918-19 :

	1917-18	1918-19
	tons	tons
Palm kernels	290,000	290,000
Ground-nuts	134,000	134,000
Castor seed	66,000	66,000
Cotton seed	300,000	300,000
Linseed	314,000	314,500
Rape seed	36,000	36,000
Palm oil	120,000	120,000
Cotton oil	18,000	30,000
Coco-nut oil	49,000	48,000
Oleo	23,000	45,000
Olive oil	18,000	5,000
Premier jus	14,000	77,000
Stearine	—	10,000
Tallow	—	40,000
Whale oil	6,000	40,000
Castor oil	—	6,000
Total	1,388,000	1,561,500

CHAPTER XIX

MARGARINE AND EDIBLE FATS

Prejudice against margarine — Its composition — Figures of consumption, 1913-16 — Weekly supplies of butter and margarine combined during 1917 — Reduction of imports from Holland — Increase of home production — Maximum Prices Order, November 1917 — Uneven distribution — Alarming increase of queues in December — Local rationing and requisitioning — Preparations for complete control — Fewer trade connexions to be broken — The Margarine Clearing House — Functions of local officials — New machinery of distribution working smoothly, June 1918.

Control of quality — Expert inspection and guidance — Weekly samples submitted — Results of examination published — Comparison of marks gained — Improvement in refined oils — Other edible fats and oils — Advantages of standard specifications.

Control of dripping and tallow — The problem of relative prices — Tallow Melters Association formed — Standardization — Sampling and testing — Results of organized competition in quality.

OWING to the decline in butter imports during 1917 and 1918, margarine assumed a far greater importance than before the war. From being regarded as something cheap and nasty, it became in the days of rationing the staple fat diet of the urban population. This change in custom was fortunately accompanied by improvement in quality. Many whose choice was limited to Government imported butter, which had lost its freshness, and home manufactured margarine straight from the factory, learnt to prefer the latter. The prejudice against it largely disappeared when it became expensive and scarce.

The approximate composition of vegetable margarine is as follows :

	Per cent.
Hard oils (palm-kernel oil or coco-nut oil) . . .	64
Soft oils (cotton-seed oil or ground-nut oil) . . .	19
Salt	4
Water	13
	100

The proportion of water is fixed by law at not more than 16 per cent. The proportion of hard oils varies with the season from three-fourths to four-fifths, being greater in hot weather.

Oleo-margarine contains animal fats to a greater or less degree in place of hard oils. About 15 per cent. of animal fats, mainly premier jus, oleo and neutral lard, is the minimum so used. Premier jus is the name given to fresh fat obtained from the heart, caul, and kidneys of cattle and sheep. Oleo and oleo oil is a softer fat obtained by hydraulic pressure from premier jus, the residue being stearine.

The average weekly consumption of margarine in the United Kingdom during the four years 1913, 1914, 1915, and 1916 was as follows :

	Home manufactured	Imported	Total
	tons	tons	tons
1913	1,630	1,420	3,050
1914	1,730	1,440	3,170
1915	2,230	1,940	4,170
1916	2,480	2,630	5,110

For the six months from January to June 1917 the average rate of consumption was about 5,410 tons per week, of which 3,260 were home manufactured and only 2,150 were imported. The following table shows the average weekly supplies of butter and margarine together, which were available from July to December 1917, compared with the first six months of the year :

AVERAGE WEEKLY SUPPLIES

1917	Margarine		Butter	Total
	Home manufactured	Imported	Imported	
	tons	tons	tons	tons
January to June	3,260	2,150	2,770	8,180
July	3,500	2,180	1,240	6,920
August	3,830	2,550	900	7,280
September	3,380	690	1,150	5,220
October	4,050	1,000	700	5,750
November	4,300	1,300	450	6,050
December	4,350	870	250	5,470

It will be seen that butter imports from July onwards were less than half the average for the first six months ; in August the imports fell to one-third. Margarine supplies on the other hand

increased till September. In that month an interruption occurred in the cross-Channel services to and from Holland, with the result that Holland got scarcely any raw material and Great Britain less than a third of her previous imports of margarine. The fall in home manufactured supplies during the same month was due to a series of air-raids over London which interfered with work at one or two factories.

No figures can be given of home-produced supplies of butter, but a rough estimate would put them at about 2,000 tons per week in normal times. In 1917 the output had fallen between 10 and 20 per cent. If, therefore, we add an estimated 1,700 tons for home-produced butter, the available supplies of butter and margarine combined in September 1917 were at the rate of about 7,000 tons a week compared with 9,000 tons a week before the war. From this figure had to be deducted 1,000 tons per week for the needs of the Army, leaving only 6,000 tons weekly for the civilian population.

An increase in the home production of margarine depended on four factors, raw materials, crushing plant, refining plant, and margarine-making plant. The crushing plant was ample, and provided that the tonnage programme was maintained, the supply of raw materials was likely to be sufficient. Early in 1917 special facilities had been granted by the Ministry of Munitions for the erection of additional plant for oil refining and margarine manufacture. The refining capacity, which during the first six months of 1917 was between 3,000 and 4,000 tons weekly, was expected to reach between 5,000 and 6,000 tons by the end of the year. The additional margarine plant which was being installed was expected to bring the total maximum output up to 6,000 tons per week at the end of 1917 and 7,000 tons by June 1918. This increase was mainly due to the large factories which were being erected by Lever Bros., and by the Dutch firms Jurgens Ltd. and Van den Berghs Ltd., each with a capacity of about 500 tons per week. The number of firms making margarine in the middle of 1917 was twenty. Nearly one-half of the total output during the first six months was produced by the Maypole Company, and during the same period fourteen firms produced less than 100 tons weekly.

If butter imports could be maintained at 1,500 tons per week, and the home production of butter remained constant at about 1,500 tons per week, the total supplies of butter and margarine were expected to reach 10,000 tons per week, without any imports of margarine from Holland. Lord Rhondda was therefore able to announce in the House of Lords on 20th November 1917 that by June 1918 the home production of margarine was expected to be four times the pre-war figure, and that the total of butter and margarine combined would be equal to the normal figure, but with their relative proportions reversed.

On 20th November 1917, after examination of costings and negotiations with margarine manufacturers, maximum prices were fixed under the Margarine (Maximum) Prices Order, 1917. Two qualities of margarine were recognized, vegetable margarine and oleo-margarine. The price to the manufacturer for the former was fixed at 10*d.* per lb. and the retail price at 1*s.* per lb. Oleo-margarine was defined as margarine containing not less than 55 per cent. in weight of the following fats : oleo, oleo-stearine, premier jus, and choice and extra choice neutral lard, and no hardened oils.

The fixing of prices prevented the public from being exploited owing to the temporary shortage, but, as always happened where supply was unequal to the demand at the fixed price, distribution became uneven, and the scarcity became most pronounced at places farthest removed from the source of supply. The shortage from September to December varied between 15 per cent. to 20 per cent. compared with pre-war consumption. With fixed prices and no control of distribution, a shortage of 20 per cent. is not likely to be spread evenly; the tendency is rather for 80 per cent. of the shops to get their usual supplies and 20 per cent. to get none. This tendency was the more pronounced in the present instance, since retailers who were in the habit of getting margarine from British factories, found no diminution in their usual supplies, whereas shops that usually sold imported butter or Dutch margarine found their source of supply suddenly reduced by more than a half. The Maypole Company, which owned the largest margarine factory, was able to deliver an even larger supply than usual to its own multiple shops. It is not surprising, therefore,

that the margarine queues, which rapidly grew in number and length during the last few weeks of the year, were longest and most clamorous at the doors of the Maypole Company's shops.

By December imports of butter had dwindled to 7 per cent. of the normal, and margarine imports were less than a third of the 1916 average. Retailers dependent on imported supplies found it practically impossible to obtain the home-produced article. The 'queue' evil reached alarming dimensions; munition workers threatened to cease work in order to stand in the queues in place of their wives and children. Immediate action had to be taken to correct the sudden failure in supply and the breakdown in distribution. The first step was the inauguration of local rationing schemes, and the second was an Order empowering local Food Control Committees to requisition supplies of margarine and redistribute them among retailers in their area.

The machinery of rationing which had long been debated and postponed, had now to be improvised in a few days. Local rationing schemes were introduced early in December in Birmingham, Chesterfield, and other industrial districts, and on 14th December Lord Rhondda urged that similar measures should be taken elsewhere. On 22nd December an Order was issued authorizing Food Control Committees to enforce local rationing schemes, and a model scheme was drawn up by the Ministry and forwarded to them for their guidance. The articles recommended for rationing were butter, margarine, and tea, the maximum ration allowed for butter and margarine together being only 4 oz. The scheme provided for registration of customers with the retailers of their choice.

The Food Control Committee (Margarine Requisition) Order, dated the 20th December, gave Committees legal powers to requisition stocks and require delivery to their order, the price to be paid being the wholesale maximum price of 10*d.* per lb. and an additional sum not exceeding $\frac{1}{2}$ *d.* per lb. to cover the expenses of the retailer from whom they were requisitioned. Where these powers were exercised, distribution was at once improved and queues diminished. On the day following the issue of the Order, the Mayor of Colchester commandeered nearly a ton of margarine and another ton three days later. The supplies were then divided

up among the retailers who had none, with the result that the crowds and long queues, which had been giving much trouble to the police, were dispersed. Raids of this kind were generally directed for reasons explained above upon the Maypole Company's shops. Supplies which the Maypole Company were selling at 11*d.* per lb. had to be taken from them and sold at 1*s.* per lb. in other shops.

These local measures were at the best a temporary palliative. To secure even distribution between area and area action on a national scale was necessary. Preparations were therefore made for putting into force complete control of distribution from the factory to the shop. The first step was taken on 21st December by the Margarine (Registration of Dealers) Order, under which wholesale dealers were required to obtain licences from the Food Controller, and retailers to register with their Food Control Committees. The next step being to obtain control of supplies, an Order was issued on 17th January requisitioning the output of margarine factories and imported supplies on their arrival at the ports. This Order came into force on 26th January. Having exact information as to the supplies available each week, the Food Controller was now able to deal with local shortages by ordering supplies to be diverted where they were most urgently required. But until a complete and systematic programme of distribution for the whole country could be laid down, emergency action of this kind was like filling up holes in a sieve. Local shortages were inevitable; all that head-quarters could do was to vary the incidence of the shortages in such a way as to prevent discontent breaking out into open rioting. During this period emergency supplies had to be sent to the districts which clamoured loudest. Fortunately in January supplies had increased by 20 per cent. compared with the previous month, and this gave the Ministry a breathing space in which to complete its plans for the reorganization of the trade.

The problem of wholesale distribution of margarine was simplified by facts which differentiated it from other trades. In most other commodities the usual trade channels consisted of at least three separate stages and often four: importer or manufacturer, broker, wholesaler, retailer. At each stage there was

a complicated network of trade connexions which could only be broken with much inconvenience and difficulty ; in nearly every case the Ministry found it necessary to make use of these normal channels, and to endeavour to give each firm a fair share of the trade proportionate to his pre-war turnover. To reconcile this principle with an even flow of goods and a reasonable economy in transport was difficult ; but the goodwill of the trade was the primary consideration in all these emergency measures, since without their full co-operation the best-planned schemes were bound to fail. Endeavours were therefore made not to interfere more than was absolutely necessary with established trade customs and particularly to avoid any step that might confer a permanent benefit or inflict a lasting hardship on any one trader or group of traders.

In the margarine trade conditions were different. The industry was a comparatively new one, and had been largely built up during the war with special facilities from the Government. The number of manufacturers was few, and many being new to the business had no established trade connexions. Their relations with the Ministry, to whom they looked for supplies of raw material and for assistance in overcoming their difficulties, were close and cordial. There was no organized wholesale market ; no factors or brokers specializing in margarine ; and very few wholesalers. Even before the war the normal practice was for supplies to go direct from importer or manufacturer to retailer. When, therefore, the Ministry took possession of the whole supply, there was a comparatively clean slate for planning distribution. Vested interests had not yet grown up, and the way was clear for a thoroughly systematic organization based on considerations of economy and convenience. The only important link which sometimes had to be broken was that between the Maypole Company's factory and its own multiple shops.

The plan adopted bears a certain resemblance to the machinery of Meat Distribution. A Margarine Clearing House was established at head-quarters. The country was mapped out into areas, and supplies for each area were allocated from the most convenient source. Within each area the unit for purposes of distribution was the Food Control Committee.

The needs of each Food Control Committee were determined first by statistics of population, and then, as rationing extended, by the number of registered customers. Outside London and the Home Counties the Executive Officer of each Food Control Committee was made responsible for receiving the supplies and dividing them up among his registered retailers according to the number of their customers. Manufacturers received payment for their output direct from the Ministry of Food; the Ministry paid the cost of transport by a lump sum credited to the Railway Executive Committee; and the local Executive Officers sold to retailers at a uniform price throughout the country and remitted the proceeds to the Ministry of Food. The Clearing House was managed by an Executive Board consisting of representatives of manufacturers, importers, and retailers, presided over by an official of the Ministry. The powers exercised by the Food Controller were defined in the Margarine (Distribution) Order, 1918, dated 23rd March. By 16th June, when the rationing of butter and margarine was finally extended to the whole of Great Britain, the new machinery of distribution was working with clock-like regularity, and with a slight improvement in the supplies available it was possible to guarantee an increase in the ration from 4 oz. per week to 5 oz.

Control of Quality

An important feature of margarine control was the care taken to produce a high quality. In the early stages one of the largest firms agreed to lend to the Ministry the services of one of their principal experts for the purpose of assisting other manufacturers to improve their methods of production. He thereupon paid visits to most of the new and smaller factories, inspected their equipment, gave advice on technical matters, and reported to the Ministry on their capacity and the quality of their output.

In April 1918 a system of sampling and testing was introduced. Manufacturers sent samples of their production each week to the Oils and Fats Department, where they were examined by experts without any indication being given of the maker's name. Marks were then given for such qualities as texture, colour, taste, smell, &c., and the results of the examination giving the week's order and any remarks likely to be useful were then sent to all firms.

In August 1918 ninety-six samples were received from factories in Great Britain, and the average number of marks for the month was 75 out of 100. The figures for previous months were as follows :

April	May	June	July
63	64	74	76

The drop of one point in August was due to difficulties experienced by certain small makers who had not hitherto manufactured table margarine but had supplied the baking and confectionery trades with an article of inferior quality. Under the Butter and Margarine Act (1907) the amount of moisture permitted is 16 per cent., but the samples examined during this period showed an average of only $12\frac{1}{2}$ per cent.

The quality of the finished product naturally depended to a large extent on the quality of the oil supplied. The production of refined deodorized oil was before the war limited to one or two firms. Special plant and technical skill were required to expand its production during the war to meet the growing needs of the margarine industry, and a careful watch was kept to prevent any firms wasting valuable raw materials by bad refining. Margarine makers were asked to send samples of any refined oils allotted to them which they did not consider reasonably suitable for margarine making, and these samples were then submitted to the technical advisers of the Ministry, and chemically tested in the Government Laboratory. If any refinery was shown by these methods to be persistently producing inferior oil, an expert would be sent to examine the factory and make suggestions for improvement. In the last resort an incompetent firm could be deprived of raw materials. In addition to casual supplies sent by margarine makers, the output of refineries was regularly tested in the same way as margarine. Considerable improvement in the standard of oil produced is shown by the following figures of the average marks from April to August 1918 :

	April	May	June	July	August
Palm-kernel oil . .	81	76	88	80	91
Coco-nut oil . .	82	87	66	90	95

The most important test was that showing the content of free fatty acids. Any considerable percentage renders the oil fit

only for soap making. The following figures show a steady diminution :

	April	May	June	July	August
Palm-kernel oil . . .	0-08	0-07	0-06	0-04	0-05
Coco-nut oil . . .	0-07	0-07	0-04	0-04	0-04

Complaints by consumers, local authorities, or retailers as to the quality of margarine supplied were also investigated, if particulars were given as to the source and date of supply. By means of code marks on the boxes in which it was packed, any consignment could be traced to the factory which produced it. It was then possible for the Ministry to determine without much difficulty whether the fault was due to the inferior quality of the oils and fats supplied, to bad manufacture, or to delay and mishandling in distribution.

The same system of control of manufacture, quality, and distribution was gradually extended to other edible oils and fats, the most important being fine vegetable oil, supplied to Jews and Mohammedans as a substitute for lard ; nut butter for vegetarians in place of meat and lard ; compound lard, a mixture of vegetable oil and fats for cooking purposes ; and shredded suet, a proprietary article consisting of beef fat and rice. Manufacturers of these articles were specially licensed and had to conform with standard specifications as to quality and ingredients. Raw materials were allotted to them at fixed prices, and they were required to sell at maximum prices which gave them a fair margin to cover cost and profit. Samples of their product had to be sent weekly to the Ministry for testing. Standard specifications were originally imposed in order to fix maximum prices, since a fixed price can only apply to an article which can legally be defined. But the experience gained proved that existing legislation provided insufficient safeguards for the public health, and that at any rate during war control of quality was an essential part of the Ministry's duties.

Dripping and Tallow

The control of dripping presented certain features of special interest. Under it competition in quality and decentralization of control were successfully applied in an unpromising field, and

an important phase of the price problem arose to which little attention has hitherto been given, namely, the proper ratio between the prices of closely related commodities. The principle of 'substitution' is an important economic doctrine, which could not be ignored even under a system of control. The affinities of dripping to margarine, lard, and butter, on the one hand, and to industrial tallow and grease on the other, constituted a most complicated problem.

Dripping as a household expression means the fat that drips from roast beef. In the trade it means edible fat obtained by melting or rendering down raw beef or mutton fat, or by the extraction of marrow fat from beef or mutton bones. The more general term is edible tallow. When the product is stale and inedible, it is called technical tallow, and is used for a variety of industrial purposes, the most important being soap making and lubrication.

Under the Ministry of Munition's original Order of the 9th May 1917, the maximum price of imported tallow was fixed at £72 per ton, and dealings in it were subject to licence. Home melt tallow escaped control; no price was fixed, and dealings in it were unrestricted. The result was that in 1918, whereas imported tallow still stood at £72 per ton, home melt tallow had risen to about £150 per ton wholesale. A recommendation that home melt tallow should be controlled was made by the Soapmakers Advisory Committee in October 1917. They suggested a scale of maximum prices varying from £50 per ton for the lowest quality to £71 for the best industrial tallow, the maximum for edible dripping and bone-fat being £85 per ton. The Ministry realized, however, that if prices were fixed by the ton and quantities less than a ton were allowed free, at least 70 per cent. of the production would escape control. The soapmakers would find their supplies cut off, and dripping would still be sold over the counter at extortionate prices. On the other hand, the suggestion that the price should be fixed at so much per pound raised a host of difficulties.

If the maximum price of imported tallow was taken as the basis, the retail price of home melt tallow should be not more than 1s. per lb. This would mean, however, that the best raw fat would have to be fixed at 7d. or 8d. per lb. At such a price

it would pay butchers not to sell fat as such at all, but to sell it adhering to the meat at prices up to 2s. per lb. On the other hand, if the price of dripping were fixed at 2s. per lb. it would be out of all proportion to margarine at 1s. per lb. Lard was 1s. 8d., vegetable lard 1s. 6d., and suet 1s. 6d. As these were all possible substitutes for dripping, 1s. 6d. per lb. appeared to be the right price. This, however, would only be possible if the raw material of dripping were fixed at corresponding prices. The best raw fat could not be fixed at less than 1s. 1d. per lb. But at this level for fat the Ministry were assured that dripping could not be produced for less than 1s. 8d. wholesale and 1s. 10d. retail. This figure was therefore decided upon. A schedule of raw fat prices divided into ten classes was drawn up and agreed between representatives of the meat trade and the home melt tallow trade, and Orders were prepared fixing the prices of raw fat, dripping, and technical tallow. Events proved later that 1s. 10d. was somewhat too high; but compared with the prices charged before control was imposed, which ran up to 2s. 6d. and even 3s. per lb., it represented a substantial reduction.

The next problem was to arrange for organized control of the collection of raw fat, and the manufacture of dripping and tallow. Following the practice which had successfully been applied in other trades, the Ministry took the initiative in getting the tallow melters organized into a national association. The proposal was well received. A trade that had hitherto had no organization of any kind, no cohesion or corporate spirit, and little self-respect or pride in its humble and unpleasant task, was now recognized as performing an essential national service, and was gratified at being invited to undertake the regulation of its own affairs on behalf of the Government.

The plan agreed upon was as follows: The Tallow Melters Association was to act as the sole agency for the collection, purchase, and treatment of all beef and mutton fat not sold in exchange for meat coupons. Every tallow melter who could prove to the satisfaction of the Ministry that he was equipped with suitable plant and was able to deal with fats entrusted to him in an efficient and economical manner, was entitled to become a member of the Association. Each member was licensed by the Ministry of Food,

and no person or firm could trade in or handle fats without a licence. His licence might be withdrawn at any time, in which case he would cease to be a member of the Association. For purposes of administration Great Britain was divided into areas, each of which appointed members to serve on an Advisory Committee in London and advise the Ministry on all matters relating to the trade. Three Sub-Committees were appointed, an Efficiency Sub-Committee, a Collection Sub-Committee, and a Commercial Sub-Committee. The duties of the first were : (1) to investigate claims for membership of the Association, (2) to see that every applicant had suitable machinery and equipment, (3) to fix the nominal capacity of each works or factory, (4) to see that means were devised to ensure that each member dealt efficiently with all fat entrusted to him, (5) to see that no fat was allowed to perish owing to defective collection, (6) to arrange that as much edible fat as possible was produced, and that the remainder should be available for glycerine and any other essential trades. The duties of the Collection Sub-Committee were : (1) to devise means of collection and distribution of raw materials, (2) to allocate raw materials to each member in proportion to factory capacity, as agreed by the Efficiency Sub-Committee, (3) to see that the most economical use was made of transport facilities and that no materials were allowed to perish by tardy deliveries, and (4) to direct supplies of raw materials so that each area was as far as possible supplied in accordance with its total factory capacity. The Commercial Sub-Committee was to deal with all questions relating to fixing of prices, classification of materials, and settlement of commercial disputes. In each area a Local Committee was appointed with corresponding sub-committees working in communication with head-quarters. The local committees were to be executive bodies carrying out the policy laid down by the Ministry of Food on the advice of the Advisory Committee and its sub-committees. To secure co-ordination with other trades it was arranged that a Joint Advisory Committee should also meet from time to time, consisting of representatives of retail butchers, glue manufacturers, bone users, hide and skin merchants, wholesale butchers and tallow melters, to discuss points of common interest.

On June 12, 1918, legal effect was given to the new control by three Orders, the Raw Beef and Raw Mutton Fat (Licensing of Purchases) Order, the Home Melt Tallow and Greases (Maximum Prices) Order, and the Home Melt Tallow and Greases (Requisition) Order. Under the first Order licences were required for dealing in raw fat, and for rendering, melting, or treating any such fat for sale. The second Order fixed maximum prices for technical tallows and greases and for edible fat or dripping, and prescribed the exact composition of each article. Edible tallow was defined as follows :

(i) It shall have been manufactured in the United Kingdom from raw beef fat, or raw mutton fat, or beef or mutton bones.

(ii) It shall have been so manufactured by a process other than the acid process ; and

(iii) It shall not contain more than 1 per cent. water and impurities (taken together) or more than 2 per cent. of free fatty acids.

Any bone fat or dripping not complying with these requirements was to be deemed to be technical tallow, and its maximum price determined accordingly. The highest price for the best industrial tallow was only £91 per ton compared with 1s. 8d. per lb. or £187 per ton wholesale for edible quality. A strong incentive was thus given to the tallow melter to produce as much dripping as possible ; similarly, the butcher who sold good fresh fat to the tallow melter received 1s. 1d. a lb. compared with 11d. per lb. for inedible fat which he had allowed to go stale. Lastly, under the third Order the output and stocks of home melt tallows and greases were requisitioned as from 9th June, and manufacturers were required to keep records showing the cost of manufacture and the price of materials supplied to them.

The standard specification prescribed for dripping formed the basis of a system of sampling and testing similar to that introduced for margarine and refined oils. A most astonishing improvement in quality was recorded month by month. Each week the proportion of edible dripping produced increased, and the quantity of technical tallow unfit for human food diminished. The figures for each area were published weekly in order of merit. Aberdeen and Manchester were always high ; London started low. A spirit of emulation between areas grew up. Local Committees competed

with one another in improving the standard of production. The Chairman of the Yorkshire Committee is said to have appealed to his fellow Yorkshiremen to bestir themselves with the words : ‘ We beat Lancashire in cricket. Shall we allow them to beat us in fat-melting ? ’ Within a short time the production of dripping had reached between two and three hundred tons a week, which formed a useful addition to the nation’s scanty fat ration.

CHAPTER XX

MILK, BUTTER, AND CHEESE

Shortage of milk during winters of 1917 and 1918 — Statistics of production and consumption — Condensed milk — Organization of the trade — Importance of wholesale firms and milk factories — Report of Sub-Committee on wholesale trade in milk — Waste, overlapping, and unequal distribution due to lack of co-ordination — Scheme of control proposed — State purchase recommended — Temporary measures of control adopted — Wholesale rationing and priority — Work of Divisional Commissioners — Introduction of certified grades of milk.

Purchase of Australian and New Zealand cheese for the Army by the Board of Trade — Ministry of Food negotiates voluntary price agreements, April 1917 — Legal maximum prices, August 1917 — Extension of cheese control — Control of butter prices — Centralization of import, December 1917 — Functions of Butter and Cheese Imports Committee — Long term contracts and purchases in open market — Argentine, South Africa, Canada, United States, Denmark, France, Holland — Pooling of purchases and averaging of prices — Results of policy adopted.

IN spite of the importance of fresh milk from the point of view of public health the normal production and consumption of milk is far less than the real needs of the population would seem to require. During the war the normal deficiency was accentuated by various circumstances, and during the winters of 1917 and 1918 the shortage gave cause for anxiety. A few statistics will illustrate the difficulties facing the Ministry of Food.

In 1908 a Census of production was taken which showed the number of cows in Great Britain to be 2,197,763 and the average daily production of milk per cow to be 1.15 gallons for the twelve months ended June 4, 1908. During the summer of 1918 a census of milk production for the week ending June 4 showed that there were almost exactly two million cows in Great Britain with an average daily production during that week of 1.97 gallons. Since June is a particularly favourable month for milk production, the average for the twelve months ended June 4, 1918, would certainly have been found to be lower than the 1908 figures. It was estimated that during the winter of 1918, which was the worst period of milk production since the outbreak of war, supplies were 25 per cent. below the normal pre-war level of winter production. The principal reasons for this reduction were, first, the shortage

of labour, and secondly, the scarcity of feeding stuffs, caused by the requisitioning of hay for the Army, by the partial failure of the root crop, and by the severe restriction of imports. On the side of consumption, the demands of military hospitals and the recurring influenza epidemics caused an abnormal drain on supplies. According to estimates made in the winter of 1918, the supplies available for all purposes were barely sufficient for a quarter of a pint per day per head of the population. The actual consumption as shown by statistics obtained from retailers in January 1918 varied very widely in different parts of the country. The consumption by areas varied from 0·31 of a pint in the London area to 0·1 in Inverness-shire, and by towns from 0·67 and 0·63 in Winchester and Hornsey to 0·08 and 0·06 in Dudley and Llanelly. An important consequence of these wide variations, which depended partly on the habits and partly on the purchasing power of the inhabitants, was that any attempt to establish a uniform rationing of milk had to be abandoned. Throughout the war attention had to be concentrated on securing priority for the more essential needs, viz. supplies for children, invalids, and mothers. Special measures were also taken to meet local and seasonal shortages of fresh milk by regulating the sale and distribution of condensed and dried milk. The consumption of condensed milk was naturally much greater in industrial than in rural areas. During 1917 the consumption of condensed milk per head of the population was sixteen tins per annum in London and fourteen tins in South Wales, whereas in East Anglia and North Wales the figures were only five and four respectively.

In the organization of the milk trade the part played by wholesale firms is of special importance. Throughout the greater part of the country the farmer sells his milk direct to a retail dairyman without the intervention of a third party, but in the large towns, and in the industrial districts of the North of England, the bulk of the milk passes through the hands of wholesale distributors. The largest of these wholesale houses is the United Dairies Limited, commonly known as the London Milk Combine, which supplies something like 90 per cent. of the milk distributed in London and owns a large number of retail shops for sale direct to the consumer. In the milk trade both supply and demand are subject to seasonal

fluctuations. During the spring and early summer there is always a larger production than in the autumn and winter months. It is therefore difficult for supply and demand to adjust themselves automatically without waste. A large wholesale firm can deal with this problem more satisfactorily than a large number of individual retailers and farmers. By establishing milk depots and factories in convenient situations in the producing areas, a large firm like the United Dairies Limited can make use of any surplus supplies for manufacturing condensed milk, dried milk, and butter. Supply and demand can then be constantly adjusted by absorbing a greater or smaller quantity in the manufacture of milk products. When the supply increases, the surplus goes to the factory; when there is a shortage, supplies can be diverted from the factory direct to the retail shop. A proper organization of the wholesale trade is therefore an essential condition of scientific and economical distribution. How far from perfect was the organization existing when the Ministry of Food turned its attention to the problem will become evident from the extracts given below from official reports on the distribution of milk.

In April 1917 the President of the Board of Agriculture appointed a Committee, known as the Astor Committee, with instructions to report on the production and distribution of milk, and among other matters to consider the steps which should be taken 'to effect economies in the cost of production and distribution and to organize supplies by administrative action so as to reach all sections of the community'. In February 1918 the Committee recommended that in view of the probable scarcity of milk during the coming winter, the Government should establish new milk depots so as to increase the supply of milk and milk products, and that the Food Controller, through the Milk Section of the Ministry of Food, should 'take over the control of the wholesale collection, utilization, and distribution of milk'. A Sub-Committee was then appointed under the Chairmanship of Mr. Wilfred Buckley, C.B.E., Director of Milk Supplies. The report of this Sub-Committee summarizes in convenient form the difficulties to be faced and the main lines of organization necessary for dealing with them.¹

¹ Cd. 9095, 1918.

The Committee examined twenty-one witnesses including farmers, retailers, and wholesalers, and summed up the difficulties of the existing situation as follows :

The evidence before the Committee has called special attention to the following difficulties :

1. The wasteful competition in the collection and handling of milk by superfluous depots or factories situated in the same area.

2. The lack of equal distribution of dairy utensils.

3. The diversion from factories or depots of milk produced in the immediate neighbourhood.

4. The uneconomical diversion of milk from one geographical area to another.

5. The unequal supplies that reach various consuming areas in proportion to requirements.

6. The difficulty in suitably allocating the amounts of milk that are required (*a*) for the manufacture of milk products, (*b*) for human consumption.

7. The need for a proper organization to balance supplies and to convert surplus milk into milk products.

8. The unnecessary amount of transportation that takes place by road and by rail in the collection and wholesale distribution.

9. The unnecessary waste of man-power, horse-power, &c., in retail distribution.

10. The fear that large organizations if uncontrolled will ultimately result in a single buyer in particular districts which would have a prejudicial effect on production.

11. The fear that large combinations of traders if uncontrolled may result in single sellers in particular districts and thereby place consumers in the hands of a monopoly to the possible detriment of quality, price, hours of delivery, &c.

12. The need for encouraging the production of cleaner and better milk, thereby (*a*) making a more wholesome supply, and (*b*) preventing waste.

13. The damage to and loss of milk caused by : (*a*) delays and unhygienic conditions on railways ; (*b*) insufficient treatment prior to transit, such as lack of cooling ; (*c*) unsatisfactory size and type of churn in common use ; (*d*) churns not being locked or sealed throughout transit.

14. The fixing of a uniform maximum price removes incentive to the production of milk of high hygienic quality.

These fourteen points throw an interesting light on the relative merits of competition and combination. Whatever the merits of competition in general, the Committee concluded that competition in milk distribution is wasteful and uneconomical, and that

a satisfactory solution of the problem is only possible by centralization and organized planning of the wholesale trade. The first eight points all emphasize the impossibility of adjusting supply and demand in the most economical and convenient way without deliberate planning and co-ordination. The absence of a single planning authority involved waste, overlapping, unnecessary transport, and unequal distribution of supplies. Clause 9 mentions that the same phenomenon exists in the retail trade. Clauses 10 and 11 state the two chief objections to any extensions of the process of combination and unification in the wholesale trade. The farmers feared that such a trust would be able to dictate prices and depress production. On the other hand consumers might find that the trust would raise the selling price and give inferior service. The last three clauses emphasize the importance of improving the quality of milk and treating it in a more hygienic manner. In particular there was a danger that a uniform maximum price would discourage the production of milk of the highest quality.

The plan proposed by the Sub-Committee for meeting these difficulties was to take over all the large wholesale firms and employ them as Government agents. By this means a single wholesale organization would be created for the whole country, and would be run as a public concern in the interests of producers and consumers alike. The actual scheme of control, which was recommended by the Sub-Committee and endorsed by the main Committee, was as follows :

SCHEME FOR CONTROL OF MILK DISTRIBUTION IN GREAT BRITAIN

1. The objects to be aimed at are the maintenance of the milk supply, the economical handling of milk, its equitable distribution and the full utilization of surplus supplies for manufacturing purposes.

2. For the purposes of controlling the distribution of milk Great Britain should be divided into suitable areas.

3. Milk Superintendents should be appointed in each area to take charge of the local distribution of milk and to act under the instructions of the Central Authority in London, with a separate Advisory Committee for Scotland meeting in Edinburgh and under the Central Authority in London. They should have access to the statistics and information in the Live Stock Commissioners' possession.

4. A National Milk Clearing House should be set up in London which should control the wholesale milk trade of the country and employ persons,

firms, or societies, who are licensed to deal in milk by wholesale as authorized wholesale milk agents, as far as is necessary.

5. The Clearing House should take over existing contracts between wholesalers and producers, but would interfere as little as possible with direct contracts between producers and retailers. Such contracts would, however, be subject to the supervision and the approval of the Milk Superintendent for the area in which the retailer may be situated.

6. All milk churns in the possession of wholesale dealers other than retail delivery churns would be taken over and become the property of the Clearing House.

7. Manufacturers whose primary business is the manufacture of milk products would be authorized to act as wholesale agents of the Clearing House and would be required to manufacture dried milk, cheese, or other products, on account of and in accordance with the instructions of the Clearing House.

8. In the organization of the wholesale trade during the war, the power of wholesale traders may be strengthened or in some cases disorganized for the period after the war. It is therefore recommended that in constituting traders agents of the Ministry of Food, the Government should at once obtain an option to purchase the businesses of such traders at a fair valuation to be arrived at by negotiation or by arbitration, as experience may show the ultimate necessity of the State becoming the sole wholesaler of milk, a development which this Committee considers to be desirable.

9. It should be the policy of the Clearing House to encourage producers to form themselves into Co-operative Associations for the purpose of improving the conditions of milk production and for the manufacture of cheese.

10. It is recognized that milk should be produced and supplied under improved conditions so that it may be more clean and wholesome when it reaches the consumer. Any improvements that can be effected, by grading or otherwise, should be made in such a way as to anticipate the lines of future requirements.

The Sub-Committee is of opinion that the most suitable locations for the establishment of new milk depots cannot be properly determined in the absence of knowledge that can only be obtained by the exercise of full control over the wholesale trade.

With regard to clause 8, recommending State purchase of the wholesale milk trade, which was carried in the Sub-Committee by a majority of ten to five, the main Committee reported that before they came to any decision, more evidence was required with regard to the financial terms and to the practical needs and effects of purchasing the entire milk trade of the country; but at the same time they recommended that 'steps should be taken to

determine the basis on which the interests could be acquired, should this be deemed advisable at any time by the Government'.

The plan of State purchase was not proceeded with, though preliminary negotiations with the large wholesale concerns showed that there would have been no serious difficulty in arriving at a method of valuation which would have been satisfactory to both parties. The plan fell through mainly because of the reluctance of the Cabinet to take any step involving the extension of State ownership as a permanent policy and the opposition which the proposal was certain to encounter in Parliament; and though the farmers' representatives might have preferred a State monopoly to a private combine, hopes were entertained at the time that wholesale milk distribution would be managed after the war by farmers' co-operative societies. Though the milk trust was not popular with either the consumers or agriculturists and was exposed to unfair and often misinformed attacks in the Press, there was not sufficient agreement amongst reformers, or sufficient backing from public opinion, to induce the Government to buy out the trust or even to obtain an option to purchase. Consequently this plan, like the similar scheme which was brought forward and considered about the same time for State purchase of the liquor trade, never bore fruit.¹

Temporary measures of control were, however, adopted. About eight hundred wholesale firms were taken over by the Ministry of Food under the Wholesale Milk Dealers (Control) Order, 1918, under which all premises used for the purpose of wholesale dealing in milk and for the manufacture of milk products came under the Ministry's control.

The administrative machinery bore a certain resemblance to the meat and live stock organization. At head-quarters there was a Milk Control Board, which included the principal administrative officials, and four representatives of farmers, traders, and consumers; a Central Milk Advisory Committee consisting of twenty-five persons, representing Government Departments, Members of Parliament, wholesalers, retailers, farmers' co-operatives, consumers' co-operatives, and manufacturing consumers of milk; and a Financial Advisory Committee of seven persons to deal with financial questions and advise on the terms

¹ For Lord Rhondda's views see Appendix 14.

to be made between the Ministry and the controlled firms. A Scottish Milk Board and Advisory Committee were established to administer control in Scotland. Assistant Commissioners for milk were appointed on the staff of Divisional Food Commissioners in each of the Food Divisions of the country, and Local Advisory Committees were set up which included representatives of the wholesale and retail trades, of the Public Health authorities, and of the local Food Control Committees.

Under the Milk (Distribution) Order, 1918, which came into force on October 5, power was taken to regulate purchases and sales, and to require any producer or dealer to sell or deliver milk to any person or place. This power to divert supplies where required at any time was delegated to the Divisional Commissioners, who kept a constant watch on deliveries to the Food Committee Areas in their Division and were immediately informed of any actual or prospective shortage. Since the normal flow of supplies was regulated by long-term contracts between farmers and retailers, or between farmers and wholesalers, there was no need for official intervention except in the marginal cases. The normal quota was ascertained for each area and for each Division; and with the aid of these statistics, and the figures available as to supplies coming forward, arrangements could be made for meeting shortages, either by diversion of supplies from milk product factories, or by a general reduction of the quota over a wide area. By this system of wholesale rationing each retailer could be assured of his fair proportion of the available supplies, though no attempt was made to ensure uniform distribution to individual consumers throughout the country as under the meat rationing scheme. Individual consumption was regulated by a series of measures designed to give priority to essential requirements and to restrict the less essential. Thus, under the Milk (Local Distribution) Order, 1918, the Food Control Committees were empowered to require retailers to supply the needs of infants, invalids, expectant mothers, and special institutions before other customers; to limit the amount to be supplied to ordinary customers; and to require every customer to be registered with one retailer. Measures were also taken to restrict the consumption of milk in restaurants and hotels, to regulate the making and sale

of cream, and to prohibit the use of fresh milk in the manufacture of chocolate and confectionery.

By this means, in spite of the shortage of milk during the winters of 1917-18 and 1918-19, priority demands were met without difficulty, and distribution to ordinary customers could be regulated fairly evenly. Improvements in the methods of handling milk and more economical organization of transport gradually received attention, but progress in this direction had not gone far before the milk trade was decontrolled. The most important permanent reform was the introduction of a system of official grading, under which milk certified to be free from tubercular infection might be sold either as grade A or as grade B. Grade A milk had to obtain not less than 80 marks for purity and cleanliness, and grade B not less than 60 marks, on the score card system adopted by the Ministry of Health. This reform benefited the producer as well as the consumer; for higher maximum prices were allowed for certified milk under control, and higher prices have been obtained in the open market since decontrol took place.

Butter and Cheese

The first intervention of the Government in the butter and cheese trade was the purchase by the Board of Trade of Australian and New Zealand cheese for the British Army. The whole exportable surplus of Australia and New Zealand for the 1916-17 season was bought at a fixed price. In May 1917 the Board of Trade began to resell a part of the supplies not required by the Army for civilian consumption, employing the usual importers and wholesalers as distributing agents.

The Ministry of Food first took action in April 1917, when the steady falling off in the supplies of home produced and imported butter and cheese was leading to a rise in price. Conferences were arranged with representative importers and wholesalers, and an informal agreement was made with the various Produce Exchanges that certain agreed prices should not be exceeded by members dealing on the exchanges. This voluntary agreement, however, proved ineffective and prices continued to rise.

After the failure of voluntary control the next step taken was

to fix legal maximum prices. This policy met with the general approval of the trade, and after taking expert advice the Food Controller issued a series of Maximum Price Orders for Butter and Cheese between August and September 1917. The general principle was to fix only the first-hand price at a definite figure leaving the price at the latest stages to be determined by the addition of the actual charges incurred and a limited profit. The wholesaler was not allowed to add more than 7*s.* 6*d.* per cwt. over and above charges for transport and storage, and the retailer was allowed to add 2½*d.* per lb. to cover his expenses and remuneration.

On May 29, 1917, the Food Controller issued an Order requisitioning all cheese arriving from the United States and Canada.¹ By this means the Government obtained control of the bulk of the imported cheese which was not already being purchased by the Board of Trade. Supplies were distributed through the ordinary trade channels in proportion to the amount handled by each trader in 1916, the retail price being fixed at 1*s.* 3*d.* per lb. In January 1918 the Ministry of Food took over from the Board of Trade the responsibility of supplying cheese for the Army, and in the course of 1918 Government purchase was extended to Dutch cheese in March, British hard cheese in June, British and Irish Caerphilly cheese in July, and Irish hard cheese in November. A Cheese Advisory Committee, representing the various interests concerned with home produced and imported cheese, was appointed in January 1918 and was consulted throughout the period of control on all important questions of policy and administration.

The first Butter Maximum Prices Order, which came into operation in September 1917, was fairly successful in steadying the retail price at about 2*s.* 4*d.* to 2*s.* 6*d.* per lb., but one or two varieties of butter which had not been included in the Order, such as Danish butter, continued to rise and at one time were sold retail at as much as 4*s.* 6*d.* to 5*s.* 6*d.* per lb. Moreover, imported butters were sometimes sold as uncontrolled varieties. Further orders were therefore made in October and November controlling the price of all butters sold in Great Britain.

It was realized from the first that the policy of fixing statutory

¹ Cheese (Requisition) Order, 1917, S. R. O. 510.

maximum prices would not be sufficient and would become positively dangerous if prices in other countries rose above the corresponding level fixed at home. The Ministry of Food therefore turned its attention in the autumn of 1917 to the organization of Government purchase of imported supplies. Towards the end of 1917 the shortage of butter, combined with the falling off in margarine imports, created a dangerous situation. The figures for butter imports during the last few months of the year have been given in the previous chapter. One of the immediate difficulties which had to be faced was that it no longer paid private importers to purchase butter from Denmark and Holland, where the prices were considerably higher than the maximum prices enforced in Great Britain. The Government therefore decided to centralize the import of butter, and in order to secure this object the importation of butter on private account was prohibited by order of the Board of Trade in December 1917.

On December 21, 1917, a Butter and Cheese Imports Committee was established by the Ministry of Food for the purpose of handling the import of butter and cheese on Government account. The constitution of the Committee provided that it should consist of not more than ten members, including seven traders, all of whom were appointed by the Food Controller. Subject to the general supervision of the Food Controller its functions were to operate as an independent trading concern and to be responsible for looking after the purchase, shipment, discharge, inspection, storage, and distribution of butter and cheese. The financing of purchases was to be arranged either through the Treasury or with the approval of the Treasury through private firms or banks. Its trading operations were financially guaranteed by the Treasury.

Where possible long-term contracts were made for the whole of the exportable surplus of producing countries. Purchases were made in this way from the Australian and New Zealand Governments at prices agreed in advance for each season, with a proviso that any profits on resale in Great Britain were to be shared with the Dominion Governments. In the Argentine, where no bulk contract was possible, a Buying Committee was established consisting of representatives of British firms in the Argentine called the Butter and Cheese Export Committee. Purchases were made

f.o.b. from time to time in the open market, out of funds provided by the Treasury in Argentine currency.

In South Africa the exportable surplus was purchased f.o.b. at prices agreed from time to time through a Buying Agency appointed by the Ministry of Food. Payment was made against shipment, the necessary funds being provided for the Butter and Cheese Imports Committee by a South African Bank.

In Canada a buying agency called the Canadian Dairy Produce Commission was established as a branch of the British Food Mission in the United States. Purchases of butter and cheese were made at prices agreed with the Food Board of Canada.

In the United States purchases for export on private account were prohibited by the United States War Trade Board. Until May 1918, purchases were made by the British Food Mission in the open market up to quantities approved by the United States Food Administration. After that date the supplies of butter required by the Allies were requisitioned for them by the Food Administration.

Danish butter was obtained by special arrangements made with the Foreign Office and the Treasury. The British share of Denmark's exportable surplus was purchased at export prices fixed by the Danish Government which were more than double the prices paid in Australia, New Zealand, and the Argentine. The loss incurred on the resale of butter in Great Britain was partly recovered by means of a special export tax imposed on coal shipped from Great Britain to Denmark.

Occasional purchases of butter were made with the permission of the French Government at current market prices direct from the producers, payment being made by the Butter and Cheese Imports Committee in French francs provided by the Treasury.

Dutch cheese was purchased f.o.b. by a buying agent appointed by the Ministry of Food whenever considerations of finance and shipping rendered it possible. Private importers were also permitted to import Dutch cheese on private account subject to requisition on arrival at the maximum first-hand price.

In the case of both butter and cheese, the selling prices were

determined by pooling the cost of all purchases made by the Ministry of Food and striking an average from time to time. In the summer of 1918 the cost of butter in the different countries of origin varied very widely as the following figures show :

	Price of butter per cwt. f.o.b.
Denmark	462s.
U.S.A.	205s.
Canada	200s.
Argentine	170s.
South Africa	170s.
New Zealand	157s.
Australia	151s.

As a result of pooling, butter was sold at a fixed retail price of 2s. 6d. per lb. from January to June 1918, when it was reduced to 2s. 4d. per lb. The original price was restored on December 16, 1918, and continued unchanged until January 1920, when it was raised first to 2s. 8d. and then to 3s. per lb. Government cheese was fixed at 1s. 8d. per lb. and remained at this figure till 1920 except for a drop of 2d. per lb. between March and December 1919.

In fixing the prices paid to the farmer for British butter and cheese regard had to be had to the prices fixed for milk. The policy adopted was to encourage the conversion of surplus milk into cheese rather than butter, and consequently the maximum price of British butter was deliberately fixed below the parity of milk and cheese prices.

The operations of the Butter and Cheese Imports Committee represented an annual turnover of about £50,000,000. Importers, wholesalers, and retailers were employed as agents to distribute supplies at rates of commission which gave a reasonable remuneration for their services. In view of the world shortage of dairy products and the wide variations in price in the different countries of origin, the monopoly exercised by the British Butter and Cheese Imports Committee was the only means of protecting the consumer. As Mr. Clynes explained in the House of Commons on February 27, 1918, the consumer obtained every ton of butter that could be shipped from all parts of the world at the average cost price and this was only possible by virtue of Government

monopoly of imports. 'If prices had been controlled and the import left in private hands, supplies costing more than the maximum price here would not have arrived. On the other hand, if prices had been left uncontrolled in order to attract the maximum quantity of imports, the general level of price of all butter would have risen at least as high as that of the most expensive imports.'

PART IV

COMPARATIVE STUDIES

CHAPTER XXI

THE PROBLEM OF WAR ORGANIZATION

Two axioms : subordination of private interests and as little interference as possible — Distrust of State management — ' Business as usual ' — Nationalization of armament industry rejected in 1914 — Contrast with Government action in regard to finance, railways, and sugar — War profits a legitimate expectation for armament shareholders — First year of war — Obtaining supplies — Speculation replaced by collective agreement — The price problem — Growth of control in the second year — State purchase of raw materials — Further developments in third and fourth years.

Principles of war organization — Economy of man-power, finance, transport, production, and consumption — Impossible to realize fully in practice — Psychological factors.

THROUGHOUT the war there were two phrases which must have been repeated many hundreds of times, in scores of different contexts—' Every private interest must be subordinated to the successful prosecution of the war ' and ' There must be as little interference as possible with the normal channels of trade '. These two phrases were axiomatic and commanded universal assent ; but like most first principles their meaning varied according to circumstances and they were differently applied at different periods of the war. In conferences between Government officials and trade representatives there was no dispute as to their abstract truth ; controversy arose as to their interpretation and application to a particular case. Each side used the words in a different sense, and, like Humpty Dumpty, ' paid them more and made them mean what they liked '.

The real problem was to determine the exact degree of interference with normal trade channels which was necessary for the successful prosecution of the war. On this question opinions varied considerably at different times and among different persons. In the abstract there was an almost universal bias against State

interference. Manufacturers and traders naturally believed in freedom of trade, the rights of property, and the merits of *laissez-faire*; they had a deep-rooted dislike for the restrictions on individual liberty and private enterprise which State Socialism implied. By a process of rationalization this instinctive antipathy gave rise to the axiom that State management was necessarily incompetent and that Government interference would therefore only make matters worse. If this were true it followed that to substitute an inefficient for an efficient system of industrial organization just when the nation was fighting for its existence, would be suicidal folly. Nor was the attitude of Ministers and Departmental officials very different. They distrusted the power of the Government to intervene successfully in matters on which there was no past experience to serve as a guide.

The development of war-time control was thus due almost entirely to the overwhelming force of circumstances and hardly at all to a deliberate policy of State intervention consciously thought out and consistently applied. The conflict between the private interests of individual traders and the general interest of the nation considered as a fighting unit was never resolved by a clear enunciation of general principles, but only gradually and in part, by piecemeal adaptations and convenient compromises. Conscription for the Army was eventually accepted as inevitable, and was applied as a fixed principle; but conscription of trade and industry was never adopted as a consistent policy to be applied impartially all round. As the war proceeded conscription of trade and industry was seen to be necessary if the nation was to put forth its maximum fighting power. But such an idea would have been scouted at the beginning of the war. And even at the end of the war it was only being applied in a half-hearted and unequal manner.

During the early stages of the war 'business as usual' was the accepted doctrine. Traders and manufacturers were encouraged to carry on, as if nothing had happened. During the first few months the great problem was to combat unemployment and get the wheels of industry restarted in the normal channels or, if that was impossible owing to the blockade of Central Europe, to open new markets in other parts of the world. In the absence of any

plan of industrial mobilization for war, this was the only possible policy to pursue. A prosperous state of trade, regular employment at good wages and high profits for the Revenue to tax and the Treasury to borrow, were regarded with good reason as essential conditions for the successful prosecution of the war. But the same general ideas were reflected in another sphere, where the justification was less obvious.

The vast and unprecedented demand for arms and ammunition, which arose almost as soon as war broke out, was as early as October 1914 seen to be much greater than the existing armament firms could meet in the time required. In these circumstances it was proposed in the War Office that the Government should nationalize the armament firms, first, in order to make sure of supplies, and secondly, to protect itself against the high prices which must necessarily result under conditions of *laissez-faire*. This proposal proved premature. To interfere with the private business of the armament manufacturers, on whose goodwill and loyal co-operation the safety of the country depended, and to undertake the heavy responsibility of direct Government management of a highly technical industry, was too great a risk to take and too openly in conflict with accepted economic doctrines.

It may appear inconsistent with this explanation that the Government had already adopted three measures of State interference of at least equal magnitude. They had guaranteed the solvency of the banks and discount houses by placing the credit of the nation behind approved commercial bills payable by enemy and other debtors, who were unable to meet their liabilities. They had taken over the railways of the country by an agreement which guaranteed them their pre-war dividends. And they had set up a Royal Commission on Sugar Supply to monopolize the purchase and import of sugar on Government account. But in each of these cases there were special circumstances which made State intervention easier and indeed almost inevitable. The first course was a bold measure to save the financial system of the country from collapse, but its effect was not so much to interfere with the private interests of the financial houses as to protect them from bankruptcy. The national interest was in no conflict with the private interests of the firms affected. In the case of railways,

the step taken had been prepared long beforehand and was accepted by all parties as necessary on military grounds. It was in fact an essential part of the plan prepared by the War Office for the rapid mobilization and dispatch of the Expeditionary Force to Flanders. In the third instance also, action was rendered easier by the abnormal state of the sugar market, when supplies from Central Europe were cut off, and by the anxiety of the large sugar refiners to obtain their raw material. Here again action was taken not so much against the interests of the trade as to protect them. The particular and the general interests were identical.

In the armament industry, however, conditions were different. The Directors of these large concerns had to consider the interests of their shareholders. Their businesses had been built up in times of peace, when the demand for their products was relatively slight. From the commercial point of view it was only reasonable that the shareholders should be able to make good in war what they had failed to reap in peace. If they were not allowed to make high profits in war-time, when their products were most needed, it would be difficult to attract capital into the business; the shareholders would consider that the Government had treated them unfairly; and if the nation broke faith with them in such a manner and deprived them of the fruits of their legitimate expectations, they could not be expected to give such good services in the future as in the past. These arguments, which the War Office could only meet with moral appeals that were strictly irrelevant, disposed of any idea that the nationalization of the armament industry could be carried through in October 1914 by mutual consent. It was not till the Ministry of Munitions was established in June of the following year and powers of control had been obtained under a special Act, that the profits of the armament firms were determined otherwise than by the laws of supply and demand, modified by their own inclinations towards sobriety.

During the first period, which may roughly be defined as the first twelve months of the war, the problem was primarily that of obtaining supplies for the Forces regardless of price. This in itself was by no means a simple problem. It soon became evident that supplies were lacking, first, because only those familiar with Army requirements were invited to tender, or if invited were able or

willing to do so ; secondly, because manufacturers were either full up with private orders, or, with large private orders on their books, were unable to offer their whole output ; and thirdly, because in certain items the requirements outran the productive capacity of the industry to meet them. In nearly every case delays inherent in the purchasing machinery of the War Office aggravated the difficulties ; and the confusion and dislocation caused by speculation, by competitive buying on the part of local commands and Allied delegates, and by uncertainties about supplies of raw material, the need of the Army for men and the probable requirements of the War Office, rendered some more systematic form of organization essential, if the Government was to count on being able to obtain what it wanted. This stage is marked by negotiations with representative Associations or Committees able to speak on behalf of a whole industry, and the substitution of collective agreements covering a long period and a wide area of production for the previous system of piece-meal demands, individual tenders, and frenzied speculation.

The next stage in the problem was marked by the growing importance attached to the question of price. Hitherto with minor exceptions the prices paid by the Government had been those that any large buyer would have had to pay ; they were determined by market forces and on the whole were neither more nor less than private individuals had to pay for similar goods. As a result, however, of Parliamentary criticism of Government extravagance, but without any express sanction from Parliament (which at that time was even more opposed to measures of State interference than the Government itself), attempts were made by voluntary agreement to base prices on cost of production and a reasonable profit. Later this principle, known as the 'costings system', was embodied in Regulation 7 and 2 B of the Defence of the Realm Regulations (see Chapter V), and it became the accepted doctrine that Government Departments had not merely the right, but the duty, to purchase supplies at prices bearing no necessary relation to market prices. The culminating point came when the right to fix maximum prices was laid down, first by an administrative extension of the right to license dealings, and finally by explicit mention in Regulations 2 B and 2 F. Thus the price problem was

solved in theory and in law by giving the Government power to fix its own prices. Before the end of the second year of the war this right had been successfully established, having been applied by the Ministry of Munitions to certain metals as early as September 1915 and by the War Office to the whole of the domestic wool clip in June 1916.

During the second year the twin problem of supplies and prices began to develop more general implications and to cover an ever-widening range of commodities and processes. The corollary of limited State interference with market forces was more State interference ; control and centralized purchase had to be extended from the finished article back to the raw material. This introduced further problems. The Government had to devise the best methods, varying greatly in different trades, for buying raw materials in foreign markets or for controlling their purchase by traders. The control of purchase, import and shipment of raw materials was adopted by the War Office in March 1916 for Russian flax, in August 1916 for jute, and in May 1916 for kips. In the meantime the decision to requisition the domestic wool clip in June 1916 raised a new set of problems relating to the treatment of the farmer and the purchase of agricultural produce at fixed prices from hundreds of thousands of individual growers. The State had now to become wholesale collecting merchant as well as wholesale distributing merchant.

In the third year of the war a change of Government occurred, which reflected and emphasized the growing changes that were taking place in the economic situation. The shortage first of finance, and then of tonnage, became increasingly stringent towards the end of 1916 and the beginning of 1917, and signs of actual world shortage were becoming pronounced in certain essential raw materials. All three reasons added weight to the general considerations which by that time were beginning to favour control of raw materials. The War Office accordingly carried through negotiations for the purchase of the whole of the Australian and New Zealand wool clips. The vast scale of the Government's operations in the woollen industry now brought to the fore two problems which had not hitherto needed any special attention : the maintenance of the export trade and the provision

of necessary supplies for the civilian population. The first was of importance owing to the difficulties of the financial situation and the need of obtaining foreign currency to pay for essential imports. But after the United States had joined the Allies exchange difficulties ceased to be so pressing a problem, and other considerations, principally the shortage of tonnage and the need for conserving raw materials for military and essential civilian needs, rendered the maintenance of the export trade of secondary importance in the system of war economy. The provision of supplies for the civilian population, however, rapidly became from January 1917 onwards one of the most difficult and complex problems of the whole war organization, and it was in the administrative experiments designed to supply the necessities of life for civilians and to ensure their fair distribution at controlled prices that Government control during the war approached nearest to the programme of State Socialism. The year 1917 also marked the most critical point in the man-power problem. A Director-General of National Service was appointed to facilitate the release of men for the Army, to restrict employment in non-essential trades and industries, and to secure the transfer of labour where it was most required. Finally, towards the end of 1917, the necessity of rendering greater assistance to the Allies both in tonnage and supplies led to the imposition of further restrictions on civilian consumption, to the establishment of a common programme of imports for all the Allies, and to the gradual recognition of the principle of equality of sacrifice and the pooling of resources.

In order to obtain a general view of the subject it may be well to summarize the problems of war organization as they appeared to an observer early in 1917. The substance of the following analysis is taken from memoranda written in the third year of the war when the necessity for industrial organization and control had already been accepted, but its full implications had not yet been realized in practice. They were written when economy of finance was as important as economy of tonnage.

The economic functions of a nation at war, as seen from the angle of the War Office, could be stated as follows :

1. To release all men of military age and fitness for service in the Army.

2. To clothe, feed, and equip the military forces.
3. To clothe, feed, equip, and house the industrial army at home.
4. To purchase and import from other nations the essential food, raw materials and finished articles which could not be produced by the industrial army at home.
5. To sell and export to other nations any commodities or services which were not required for military or industrial purposes and which they would accept in payment for the above.

Labour and capital employed in any of these economic activities were engaged in essential services; where they were employed otherwise, they were being wasted. To the extent to which labour and capital was not employed in essential services, the nation's war effort was being weakened. If victory was to be attained, the greatest possible effort was necessary and the whole economic resources of the country had to be mobilized for the sole object of prosecuting the war.

In order to achieve this end, measures were necessary to ensure the following :

1. *Economy of Man Power.*

- (a) Replacement of men released for the army by men unfit for military service or over military age, and by women.

- (b) Prohibition or restriction of employment in non-essential or less essential occupations, viz. in luxury trades for domestic consumption.

- (c) Transfer of labour from non-essential to essential production by voluntary or if necessary compulsory means.

2. *Economy of Finance.*

- (a) Prohibition or restriction of raising capital or borrowing for non-essential or less essential purposes.

- (b) Prohibition of export of capital and import of securities.

- (c) Control of foreign exchange with a view to financing only essential imports.

- (d) Stabilization of prices, profits, and wages so as to check inflation, avoid industrial unrest and wage disputes, and discourage expenditure on luxuries and non-essentials.

- (e) All surplus profits and unearned increment to be appro-

appropriated for expenditure on essential services either by State monopoly, by taxation, or by voluntary and if necessary compulsory loans.

3. *Economy of transport:*

(a) Centralized control of maritime transport.

(b) Restriction of imports to military requirements and essential civilian needs.

(c) Restriction of movement of goods and persons by rail with priority for essential purposes.

(d) Organized distribution by 'zone' system of food, raw materials, and other essential requirements so as to reduce railway carriage to a minimum and eliminate cross hauling.

(e) Essential commodities to be carried free on Government account, estimated costs of transport being averaged and pooled for each industry or trade.

4. *Economy of Production.*

(a) Centralized control and distribution of raw materials for essential purposes by Government Department or Controlled Association of Traders.

(b) Control of each of the principal industries to be vested in Councils representing Government, owners, managers, and workers.

(c) Programme of production for each industry in following order of priority :

(i) British and Allied military and naval requirements at controlled prices.

(ii) Minimum essential requirements for civilian consumption at controlled prices.

(iii) Balance available, including luxury articles, for export at highest prices obtainable.

(d) Centralized management of industry so as to secure the most economical division of labour between factories, having regard to raw materials, transport and labour available ; the most efficient and convenient plants being run full time and the less efficient and convenient being closed down.

(e) Pooling of costs of production and profits in each industry so as to secure equality of sacrifice and to keep all factories in efficient working order and available for production when required.

(f) Pooling of trade secrets and technical knowledge of special processes, and training of workers and managers in up-to-date methods of production.

(g) Examination of quality and costs of products, and publication of results in comparative form so as to encourage competition and *esprit de corps* among producers.

5. *Economy of consumption.*

(a) Endeavours to be made to cut down superfluous consumption and waste in the Army by reducing unnecessarily heavy rations, by accepting substitutes for less important articles of equipment, and by collection and repair of cast-off and damaged clothing and equipment.

(b) Organized distribution and if necessary rationing of essential civilian requirements, viz. food, clothing, and household necessities at fixed prices.

(c) Prohibition of sale and purchase of articles of luxury, and sumptuary regulations.

(d) Restriction of civilian consumption of light, fuel, and petrol.

(e) 'Stretching' of bread and production of economical food substitutes.

(f) Elimination of waste and regulations limiting consumption by animals of articles fit for human food.

The above programme was never of course completely realized even in the latest stages of the war, not so much because the proposals were not desirable on strictly military grounds, but because their introduction and application on anything like a universal and wholesale scale was politically and psychologically impossible. Each measure of drastic State interference had to be preceded by some disaster or some immediately impending danger, before the psychological conditions were ripe for its introduction and successful enforcement. Neither the Government, nor traders, nor public opinion wanted more State interference than was absolutely necessary. Consequently the necessary adjustments and reorganizations were put off to the very last moment, generally so late as to increase the inherent difficulties and to magnify the risk of breakdown. But, as is shown in the case of rationing, such delays had their compensating advantages in

the immense simplification which a thorough psychological preparation for State interference brought about.

But though the comprehensive programme sketched above was never fully realized, nearly all the principles laid down influenced policy in some sphere or other, in varying degrees and with varying success. An attempt will be made in the next chapter to show to what extent they were applicable and how far they were actually applied in two of the industries controlled by the War Office.

CHAPTER XXII

ORGANIZATION OF INDUSTRY

Crisis in 1917 — Review of situation by Army Contracts Department — Man-power, production, export trade, consumption — Measures already taken inadequate — Need for treating each industry as a unit — Illustration from woollen and worsted industries — Man Power and Production Committees — Constitution and functions — Advantages of joint control — Promotion of export — Exporters Committee — Restriction of imports — Centralized purchase of raw material — Importers Committee — Division of functions between Departments.

IN the early months of 1917 the situation of the Allied cause was more critical than it ever was before or since. The intensive submarine campaign was at its height. Ships were being sunk at a rate which would have brought about a surrender to the enemy within a few months, or even within a few weeks if several wheat and other food cargoes had been sunk in quick succession. The United States had not yet entered the war and the difficulties of financing purchases in North and South America were rapidly cutting off supplies even where tonnage was available. The need for reinforcements was becoming ever more insistent and all men of military age and fitness who could possibly be spared were being combed out by the new Department of National Service. The policy of conscripting labour to fill the gaps left by men taken for the front was being seriously considered and was gradually being introduced bit by bit and in indirect ways. A Food Controller had been appointed and was known to be considering plans for compulsory rationing.

A general review of the situation made by the Army Contracts Department at this time drew attention to the need for the extension and better co-ordination of the various measures of control exercised by different Government Departments, and urged that the right line of advance was to treat each industry as a unit in dealing with the closely related problems of man-power, trade and production. The problems raised in this survey of the situation cover a good part of the general programme sketched in the last

chapter, the illustrations being taken from the woollen and worsted industries. The main objects to be aimed at were considered under four heads: (1) economy of man power, (2) maximum production, first for military purposes and secondly for export, (3) encouragement of export trade, (4) restriction of domestic consumption and of superfluous imports. The steps already taken to achieve these ends were indicated and suggestions were made for applying similar measures with necessary modifications to all industries.

The steps taken to achieve the above ends were shown to be insufficient.

1. The Army was still not getting the number of men required and large numbers of potential recruits were still retained in industry owing to the impossibility of replacing them. Replacement of men released for the Army had hitherto been effected, outside the munition industries proper, in an imperfect and haphazard manner by the attraction of higher wages and the conflicting efforts of individual firms competing with one another. The decision as to what labour could be released for the Army rested partly with the Local Tribunals, partly with the Central Man Power Board, and partly with the Government Department chiefly concerned in the control of the industry. These different authorities, being guided by varying considerations, were apt to conflict with one another and cause friction and uncertainty in the industry. The problem of finding substitutes for men released was also being tackled by the military authorities under the new Substitution Scheme, whereby men of military age but of low military category were being released from the Army to take the place of men called up. This scheme however did not extend to women or to men over military age, and was weakened by the fact that the men so released were under no legal obligation to continue in the employment found for them.

Scarcely any attempt had yet been made to cut down the employment of labour for non-essential purposes. A beginning had indeed been made by prohibiting certain scheduled trades from taking on fresh labour, but the Government had not yet gone so far as to prohibit the performance of non-essential services and the manufacture of superfluous luxuries, except on other

grounds such as consumption of valuable raw materials. Lastly, no organized system had been generally adopted for the transfer of labour from non-essential to essential production, except in the engineering trades under the Ministry of Munitions Act and by the establishment of War Munitions Volunteers.

2. Maximum production for the British and Allied forces was being obtained by compulsory requisitioning of output and control of raw materials. But no corresponding steps had been taken to secure priority for the demands of the export trade over unnecessary demands for home consumption.

3. No systematic attempt had been made to increase the volume of the export trade, to open up new markets, and to divert surplus production into export channels by deliberate organization of trade and industry for that purpose.

4. A system of control already existed for restricting imports of unnecessary articles, but many goods were still being imported in excessive quantities for civilian consumption.

All four problems, Man Power, Production, Export, and Import, were closely connected and could only be profitably dealt with by taking each industry or group of industries as a unit and considering the problem as a whole. To achieve any results State action was bound to interfere with normal trade conditions and for that reason it was essential to have the closest co-operation between all interests, viz. manufacturers, employees, merchants, and representatives of the Departments principally concerned. An illustration of the manner in which the whole problem might be dealt with on these lines was afforded by the steps already taken in the woollen and worsted industries.

Application to Woollen and Worsted Industries

In the woollen and worsted industries Government control had been established to secure a very large output of clothing for the British and Allied armies at the cheapest cost. Recently, however, it had become necessary to pay increasing attention to the release of woollen and worsted operatives for the Army, to the transfer of workers from civilian to military, or from non-essential to essential processes, to the encouragement of the export trade, and to the control of supplies for home consumption both in

regard to quantity and price. The experience gained showed that the best means of achieving these ends was to establish Committees representing the Government, the employees, and the employers. Committees of this kind, called Man Power and Production Committees, had been set up in Bradford for the worsted industry and the woollen industry, in Manchester for the flannel industry, in Glasgow for the Scottish woollen and hosiery industry, and in Leicester for the Midland hosiery industry.

The composition and functions of these local Committees on Man Power and Production are described in the official memorandum as follows :

These Committees consist in each case of four representatives of the employers and four trade unionists, with local officers of the Recruiting Department and of the Contracts Department of the War Office. In the case of the two Bradford Committees, the chief Substitution Officer for the district, who is responsible to the Inspector of Recruiting (Northern Command), is Chairman ; a local Officer of the Contracts Department is Secretary ; and other officers of the two Departments attend as and when required.

The procedure of the Worsted Committee may be taken as typical.

- (1) The first step taken by the Committee was to obtain a detailed census of labour, machinery, and output in the whole of the Worsted Industry. This census showed the number of men and women employed in each firm on each of some fifty or more processes, the number and age-groups of men of military age and their medical categories.
- (2) With the aid of the census, the Committee has laid down a scale showing the minimum number of men required for each process in proportion to the weekly output for essential purposes. This has been applied as a test to each firm in the industry with a view to the immediate release of all surplus men of military age.
- (3) Each firm in the industry has supplied a list of all the men of military age who can be released if substitutes are available. Further, in order to procure substitutes, particulars have been supplied by all firms of all skilled men who have been at any time in their employ and who are serving in the Army at home. In addition the Recruiting Authorities have compiled lists of all available substitutes—skilled and unskilled—whether already called up and in the Army, or unfit for general service, or waiting to be called up.
- (4) Separate Sub-Committees composed of at least one employer and one trade unionist have been appointed for each branch of the trade, and these Committees assist the Recruiting and Sub-

stitution Officers in selecting men from the substitutes list for particular jobs.

- (5) The Committee acts through the Trade Union concerned in transferring skilled men from firms employed on non-essential work to firms who are short of labour for essential production, viz. Government or export orders.
- (6) Acting through the Employment Department of the Board of Trade, the Committee is encouraging the introduction of women workers from other districts for the purpose of utilizing them in factories engaged mainly on Government work.
- (7) The census of machinery enables the representatives of each branch of industry to advise the Contracts Department on the distribution of Government orders. If a firm does not voluntarily undertake its fair share of Government work (which in present circumstances is much less profitable than the home or export trade), compulsory steps are taken to requisition its output.
- (8) In a similar manner the Committee will assist the Department to deal with any difficulties that may arise in connexion with the scheme for stimulating the export trade by means of export Priority Certificates. The Committee will assist the Department to bring pressure to bear on firms who are not doing their fair share of export work.

The chief advantage obtained by means of these local Committees on Man Power and Production was that the different interests concerned were able to meet for discussion of their various points of view instead of looking upon one another with suspicion and even openly fighting one another. Representatives of the Recruiting and Contracts Department were compelled to meet each other half-way and attempt to reconcile the conflicting interests of recruiting on the one hand and production for military purposes on the other. Similarly employers and employed were brought together to settle questions on which their interests were to some extent, but not altogether, divergent. But even more important was the close co-operation between the Government and the trade which such Committees rendered possible. Instead of leaving problems of release, substitution and transfer of labour to be settled by the strongest pull in a perpetual tug-of-war, a considered attempt was made to weigh possibilities and devise ways and means for a satisfactory solution by the aid of detailed statistics and a practical knowledge of the technicalities of the

industry. The results achieved were such as to justify the policy. In the worsted trade the demands of the Recruiting Department for the release of several hundred additional men were met without impairing production. Women were gradually introduced to do work which had hitherto been done by men, and substitutes adapted for particular jobs were provided by the military authorities without causing friction with organized labour. Moreover, the trade unions themselves undertook the responsibility of transferring labour to the firms where their employment would be most valuable in the national interest. The presence of employers and employed on the same Committees created a healthy rivalry in subordinating private interests to urgent national interests.

It should be observed that in the woollen and worsted trades, as also in the leather trades, the control of labour and machinery was completed by the fact that the War Office controlled the whole of the raw material. Strong pressure could thereby be brought to bear to diminish production for superfluous domestic needs and to encourage the export trade. Firms were aware that unless they took their fair share of Government work and export orders, they would not only have their labour taken from them but would run the risk of being starved of raw material. These conditions did not exist in other industries. It was suggested, however, that in trades where no Government Department controlled raw materials to the same extent, similar pressure might be brought to bear by restricting the import of raw materials and attaching conditions to the use of any material allowed to be imported.

Promotion of export trade

It was not sufficient, however, merely to give priority of labour and raw materials to the export trade. It was necessary also to find buyers in the countries where, for reasons of national finance, increased export was of vital importance at that time. These countries were particularly North and South America, but export to other neutral countries, e. g. China and Spain, indirectly had their effect on the exchange.

For this purpose steps were taken to organize the large

exporting merchants in the woollen, worsted, and clothing trades. A representative Exporters Committee was set up whose duty it was to co-ordinate efforts to find new markets and to adjust selling prices so as to get the maximum return in foreign exchange from those markets. Moreover, in order to provide a solid foundation for the extension of export business, the War Office decided to standardize over a period the prices at which Government controlled materials would be supplied for the export trade. It was also the duty of the Exporters Committee to advise the Committee on Man Power and Production with regard to the issue of certificates giving priority to export orders. Similarly in the boot and leather industries, the Leather Control Committee, which was set up to advise the War Office in controlling the purchase and distribution of raw materials in the leather trades, helped to stimulate the export trade by granting preference in the release of raw materials for export work as against work for the home markets. Both the Wholesale Clothiers Association and the Federation of Boot Manufacturers made arrangements for sending out travellers on behalf of their trades as a whole to exploit new markets in North and South America.

The memorandum continues as follows :

As the shortage of tonnage grows more acute and the difficulties of financing the purchase of munitions and foodstuffs in America increase, a more drastic treatment of the import problem becomes of vital importance. A distinction may be drawn between the import of manufactured articles and the import of raw materials and semi-manufactured articles. The former eat into our limited financial resources but do not involve unnecessary employment of labour except in the services of transport and distribution. The latter, however, involve the utilization of labour for the subsequent stages of manufacture, and in so far as the product is not re-exported or delivered against Government orders, drastic restriction is necessary. Where the import of manufactured articles is prohibited control is necessary to ensure that the demand is not met by non-essential production at home. This may be achieved either by deliberate prohibition of manufacture or by compulsory withdrawal of labour, both of which measures would best be enforced by local Committees on Man Power and Production. Where restriction of import is applied to raw materials and semi-manufactured articles, part of which is required for essential production and part for non-essential production, steps must be taken to control distribution and prevent the materials being diverted into unnecessary channels of manufacture. Reference has already been made to

the control exercised in this respect in the woollen and worsted industries by direct Government purchase and sale of the raw material. A similar monopoly exists in the case of imported flax and flax seed and certain kinds of hides and tanning materials. Centralized purchase and sale renders it possible to ration the trade and to fix prices in such a way as to secure preference for Government and export work over the requirements of home trade. The mere restriction of imports and licences tends to encourage artificial inflation of prices and even to illegitimate trafficking in licences. Where no Government Department can undertake centralized purchase it may therefore be necessary to set up some other machinery for controlling distribution in the national interest.

The most practicable course would appear to be to entrust the sole right of purchasing each raw material to a single Association or group of importers. The importers' Committee of Control would license all purchases and sales and allot to each importer their proportion of the total business. In consultation with the Board of Trade or other Government Department chiefly concerned, they would settle the minimum quantities necessary for maintaining production for essential purposes and for this purpose would have the right of calling for compulsory returns of productive capacity, stock in existence, and normal rate of consumption. The profits of individual importers would be limited to a fixed rate of commission, and any surplus profits obtained from the higher prices due to restriction of import would be for Government account. Arrangements of this kind have been made from time to time with the Tanners Federation for the import of hides and tanning materials, and proposals are now being considered for applying the same principle to the import of raw jute. The co-ordination of import policy as between different commodities and between the requirements of the various Government Departments would rest with the new Inter-Departmental Committee on Restriction of Imports which it is proposed to set up. It is clearly essential for the maintenance of our export trade that manufacturers should be certain of receiving sufficient supplies of raw materials at reasonable prices, and it will therefore be one of the most important functions of the proposed Inter-Departmental Committee to safeguard the limited quantities of raw materials which can be imported against unnecessary inflation of price and diversion into non-essential channels of manufacture.

It is now possible to suggest in broad outline the means by which the main objects of industrial organization for war purposes may be achieved. If swift and vigorous action is to be taken in dealing with the many complex problems involved it would seem to be essential:

- (i) That each main industry or group of industries should be dealt with *ad hoc*.
- (ii) That the responsibility of supervising the organization of each industry on behalf of the Government should rest with the Government Department chiefly concerned in each case. So

long as the connected problems of Man Power and Production, Import and Export, in the same trade are dealt with by several different authorities responsible to different Government Departments, divided counsels and inefficiency are bound to result.

- (iii) That compulsory powers for increasing or restricting production should be exercised through a small responsible Committee of the trade, representing employers and employed.
- (iv) That the encouragement of export and the control of imported raw material should be entrusted to Committees of exporters and importers acting in consultation with and under the supervision of the Government Department chiefly concerned.
- (v) That while the details of organization must be left to the circumstances of each industry, the general lines of policy should be co-ordinated by an Inter-Departmental Committee fully representative of the more important branches of Government policy, e.g. :
 - (a) The need of men for the Army.
 - (b) The difficulties of the shipping problem.
 - (c) The financial situation.
 - (d) The production of military requirements.
 - (e) The maintenance of food supplies and essential civilian requirements.

It was proposed that the division of functions between the different controlling Departments should continue as before. The Ministry of Munitions would be responsible for the engineering and munitions industries and the War Office for the textile and leather industries ; the Boards of Agriculture and the Food Controller would control agriculture and the food trades ; and the Board of Trade would exercise general control over the supply of essential civilian requirements, and the cutting down of non-essential production in those trades with which neither of the other Departments was in direct touch.

It will be seen that the chief thought running through this general survey is the need for greater co-ordination. Early in 1917 control was being rapidly extended in every direction, but there was no comprehensive policy to guide the activities of the controlling Departments. Gradually during the next eighteen months this deficiency was made good ; but the absence of an Economic General Staff to plan and co-ordinate all the multifarious aspects of Government control was felt until the end of the war. Some

of the functions of such a body were exercised by the War Priorities Committee of the Cabinet, which determined the relative claims of rival Departments for men and materials at home ; but since shipping was from 1917 onwards the chief limiting factor in the supply of materials, the Ministry of Shipping and the Allied Maritime Transport Council became in fact the ultimate arbiters. The result was that the touchstone applied to every form of economic activity was its importance from the tonnage point of view, which did not necessarily correspond with the more general standpoint of the maximum economic efficiency. Many things were done or left undone which were of no importance to the Ministry of Shipping and yet had a vital bearing on the national war effort.

One of these questions was the importance to be attached to the export trade. The volume of goods exported during the war was necessarily restricted, partly owing to the vast scale of military requirements and partly in order to prevent supplies going to enemy countries. But prohibition and restriction of exports were often unsatisfactory. Restrictions were imposed with the object of checking competition by foreign buyers ; but their effect went beyond the immediate object of safeguarding supplies for essential purposes and encouraged a larger consumption of unessential commodities by the civilian population. By a more systematic organization of trade and industry essential supplies might have been safeguarded and their prices controlled without checking the export of the unessential surplus. Indeed, as the experience of the export priority scheme in the woollen and worsted industries showed, it was possible to go further than this and provide a special stimulus for the export trade, so long as there was any surplus available for export. But the chief reason for promoting export disappeared when the United States entered the war and undertook to provide unlimited dollar credits ; and with the severe restriction on the import of raw materials that followed most industries ceased to have any large surplus of goods to export. It is probably true, however, that in certain industries, such as cotton for example, restrictions on domestic consumption of cotton goods and deliberate promotion of export would still have been a feasible policy worth pursuing if the sole consideration

had been the maximum war effort. As it was, high wages and high profits actually stimulated the home consumption of cotton goods above the average.

In other respects the organization of industry, outside munitions industries, made important advances during 1917 and 1918. The formation of representative bodies, to advise and co-operate in the administration of control, has been mentioned as an essential feature in nearly every scheme touched on in previous chapters. Of special interest are the Wool Control Board, the Leather Council, and the Flax Control Board. In each case three parties were represented—the Government, the employers, and the workers, and through them the administration of control became more and more a matter of responsible self-government. The method of conference and deliberation replaced the earlier processes of bargaining, and State control became less intolerable when elected representatives of employers and workers were invited by the Government to take their share in the administration of control.

But the most important development during the last year of the war was the extension of the method of conference and co-operation on an international scale. The initiative in this sphere was taken by the Allied Maritime Transport Council, which found it essential to have the demands for tonnage made by competing industries in the different Allied countries sifted and reduced to an agreed figure by direct negotiation between the Allied interests concerned. For this purpose Inter-Allied Programme Committees were formed in Wool, Leather, Jute, Hemp and Flax, and Inter-Allied Executives or joint-buying organizations in cereals, oilseeds, meat, and other commodities.

Though negotiations on these bodies were in the hands of Government representatives, representatives of the trades and industries were sometimes invited as assessors, and at two meetings of the Inter-Allied Oilseeds Executive in Paris delegates from every section of the industry—soap manufacturers, margarine manufacturers, crushers, brokers, and merchants—took part in the discussions and contributed to the formulation of a joint policy covering the imports and exports of half the world and the industries of three countries.

The aims and structure of the various war-time organizations thus came to bear a certain similarity over a fairly wide range. The unifying influences were, firstly, the necessity for co-ordination between different industries and branches of industry faced with the same problems; secondly, the scarcity of tonnage and the need for apportioning its incidence by agreement and mutual concession; and thirdly, the movement towards more decentralization and sharing of responsibility in the administration of control.

CHAPTER XXIII

THE MECHANISM AND THEORY OF PRICE FIXING

The novelty of price control — Growth of an idea — Price control for military purposes — The methods of the ring adapted for public ends — Price fixing for civilian consumption more difficult — War-time boots and standard clothing — Standardization and identification by marks — Resemblance to sale of proprietary articles — Control of supply, licensing, and rationing of demand — How far were maximum prices observed ?

Theoretical objections to price fixing — Effects on production and consumption — Price fixing used either to discourage or to encourage production according to plan — Guaranteed prices for farmers — Reduction of consumption by rationing rather than by destitution — Effect on prices and consumption of non-rationed articles — Continual extension of control — The right balance of prices — Diversion and transference of purchasing power — Price control and inflation — Was inflation inevitable ? — Price-control and rationing an alternative.

BEFORE the war, apart from certain statutory regulations limiting the prices to be charged by public utility companies, State control of prices was unknown and, for the most part, unthinkable. Maximum prices, 'fair' prices and penalties for profiteering and forestalling were classed among the economic heresies of the dark ages before Adam Smith had proclaimed the gospel of modern commerce. Even Socialists stopped short at suggesting Government regulation of prices, so long as the means of production and exchange remained in private hands. The idea that in the twentieth century laws could be passed and enforced, prohibiting private traders from buying or selling articles of food or clothing at more than prescribed prices, would have been regarded as too paradoxical even for Mr. Shaw or Mr. Chesterton. Mr. Wells, indeed, had prophesied that the next war would be fought with aeroplanes and tanks, but even he had not foreseen the régime of food-cards and maximum prices with which belligerent Governments would afflict long-suffering grocers and housewives. When early in the war the Workers War Emergency Committee demanded that the Government should commandeer all foodstuffs and divide them up equally, their proposal sounded actually less fantastic than the

notion that tens of thousands of private traders should be told what and when to buy, to whom they should sell, and what price they should pay and receive.

At a later stage in the war public opinion had become so familiar with this system of price control that unthinking critics of the Government expected it to abolish profiteering at a stroke by the mere process of 'fixing prices'.

Here we have the elements of an interesting sociological study—the birth or rather re-birth of a revolutionary idea, its reception amid almost universal scepticism and derision, its gradual acceptance by practical men as the result of cautious experiment and the elaboration of a complex technique, its apotheosis by the myth-making multitude as an infallible panacea, and its subsequent collapse and discredit amid general unpopularity when the immediate occasion for its usefulness had passed. It is a curious commentary on what used to be regarded as the 'eternal' truths of economic science that this heretical doctrine had a greater vogue and more important practical consequences during its short term of existence than many of the abstract generalizations which are supposed to be true for all time but are never strictly applicable except in a hypothetical world.

This chapter is concerned with the development of a technique for enforcing price control, and the conditions which determined success or failure. An attempt will also be made to estimate the general validity of price control as a war policy and its relation to other war phenomena such as inflation, restriction of consumption, and stimulation of production.

The first attempt to get away from the normal adjustment of prices by competitive tendering and the higgling of the market was by entering into collective agreements with associations of traders. The significance of the early negotiations with the Wholesale Clothiers Federation, with the President of the Boot Manufacturers Association, and with the United Tanners Federation becomes evident from every succeeding chapter. The essence of price control, at the end of the war as at the beginning, was the substitution of organized co-operation for competition. Voluntary agreements, however, were not enough. The next steps were the exercise of compulsory powers of requisitioning, and the invention

of a legal doctrine, ultimately resting upon an antiquated notion of the Royal Prerogative, that the Government was not compelled to pay the market price for goods required for military purposes. With the invention of the costings system, under which the Government obtained its own raw or subsidiary materials and handed them to a manufacturer to be worked up for an agreed margin or conversion cost, goods for military purposes could be obtained at prices independent of ordinary market prices in this country and determined only by prices ruling in world markets for the raw produce. Later, with the growing stringency of tonnage and finance, even the world market ceased to have any meaning, and by centralized purchases in bulk at the cheapest source of supply, the Government was able to obtain its own raw materials such as wool, kips, and hides at lower prices than other countries were compelled to pay for the balance obtainable elsewhere.

The problem of controlling prices for military goods was thus solved by buying at the source and limiting profits at intermediate stages up to the finished article. In a sense there was no price problem when the Government was supplying its own needs ; it merely bought the raw materials as cheaply as possible and treated manufacturers and merchants as agents performing certain services. Even in this field, however, other methods were sometimes employed, which emphasize the importance of trade associations. The Government needed British hides for harness and equipment and for the soles of Army boots ; but it did not need them all. It therefore agreed on a basis of prices with the United Tanners Federation, which undertook (provided export was prohibited, thus cutting off every alternative outlet) to induce its members not to pay more than a fixed price to butchers. The methods of the ' ring ', which had in the past been used to keep up prices against the Government, were now used to keep them down in the Government's favour. Provided the members of the group loyally observed their undertaking, the price fixing of the ' ring ' was as effective as centralized State purchase in controlling prices. Agricultural producers in all countries are beginning to realize that this is true, to a less extent but enough to cause disquieting suspicions, in peace as well as in war. During the war, moreover, the ' ring ' worked in the open under the supervision

and sometimes with the statutory authority of the Government. In peace farmers complain that they work in secret, that they consult neither the Government nor themselves as to the price to be paid, and that they are more active in preventing a rise than in stopping a slump. Price fixing by agreement between buyers, which was the key to price fixing by Government regulation, is familiar enough at all times. There is no mystery and little novelty in maximum prices so determined.

A maximum buying price, however, enforced by a monopolist or group, is essentially different from a maximum selling price enforced upon a third party. Granted that commodities could be bought and sold by the Government or by an association of traders at fixed prices, the problem still remained of ensuring that dealers at intermediate stages and ultimately retail traders charged no more than a reasonable price allowing a fair margin of profit. This problem only arose under the War Office, so far as it was concerned with supplies sold for civilian consumption. Until the third year of the war few attempts were made to control prices for the benefit of the civilian consumer. Manufacturers of jute goods, woollen and worsted goods, boots, ropes, linen, and leather, were allowed complete freedom to charge what price they could get to merchants, exporters, and domestic consumers. Consequently the Government, in releasing raw materials such as wool, flax, or hides for civilian consumption, charged the market price and made substantial profits. To have sold these raw materials at less than market price, without establishing complete control down to the retail shop, would have merely meant making a present to some dealer or manufacturer at one stage of the process of transformation into the finished article. Artificial reduction of the price of raw material, like similar action in controlling rates of freight, would not by itself have cheapened the price of the finished article. Price fixing breaks down if at any stage there is a free market between buyer and seller. To make the chain complete it was evident that the principle of the fixed margin, or payment for services rendered, would have to be enforced from beginning to end. It was not the business of the War Office to attempt any such task.

In two important cases, however, an exception was made.

The War Time Boot Scheme and the Standard Clothing Scheme were offshoots of War Office control of the wool textile and leather industries. In each case a process of costing, similar to that in force for military requirements, was applied to a certain proportion of the civilian output. The War Office released raw material on condition that the prices charged by the manufacturer, the wholesale distributor, and the retail trader, did not exceed a fixed schedule; and, to facilitate enforcement, every article so made was marked with the Government price which might not be exceeded. The essential features of both schemes were standardization of quality and identification by marks. In the case of boots, the Government mark, including the price, was stamped on the sole; standard cloth was given a selvedge of red, white, and blue. In neither case were standardization and fixed prices applied to the whole output of the industry; fancy goods and goods for export always remained free. Nor was there any systematic attempt to ration the standard goods produced. The technique of price fixing resembled the control exercised over retail traders by manufacturers of proprietary articles, by the Imperial Tobacco Company, or by a large concern like the Shell Company over its agents and retail purveyors. A tin of petrol, an ounce of tobacco, and a patent medicine are sold retail at prices determined at the source, and incidentally, like war-time boots and standard cloth, their prices are practically uniform throughout the country. The sanction in both cases is much the same. A retailer who sells above or below the fixed price is liable to be cut off supplies.

Other experiments were made at the War Office and also at the Ministry of Munitions, which showed that maximum prices might be enforced in certain cases by a system of licensing. All the wholesale dealers in some commodity, such as tungsten or wool noils, might be prohibited from dealing except on terms. Maximum selling prices could then be enforced as a condition of being allowed to deal. This was a rough and ready method, but was useful and effective in cases where the source of supply and the ultimate demand were controlled by Government purchase or by some form of rationing according to priority.

When the Ministry of Food was established sufficient experi-

ence had been gained to point the way to the gigantic enterprise of controlling the prices of most of the principal foodstuffs. The essential elements of the plan were (1) centralized purchase or control of supply at the source, (2) standardization and identification of quality, (3) licensing of traders, and (4) some form of rationing or control of demand. It was emphatically not sufficient merely to issue Maximum Price Orders, however severe the penalties that might be imposed on infringement. Supporters and critics alike were apt to regard maximum prices as depending for their efficacy on magistrates and policemen; one party upheld, and the other denounced, the policy of trying to suspend the laws of supply and demand by punishing the profiteer. It is not worth labouring the point that it was not by such methods that prices were controlled.

It is worth considering, however, how far maximum prices were in fact observed. Broadly speaking, illicit trade never reached important dimensions in this country compared with Germany or Austria, partly because control was more thorough, partly because supplies were never so low as to impose a severe strain, and partly because popular opinion, including that of the trades controlled, accepted control as a necessity and sanctioned acquiescence as a patriotic duty. If maximum prices had had to depend for their enforcement merely on Orders of the Food Controller and on prosecutions in the courts, they would have been laughed out of existence in a week. But when public opinion had got accustomed to the idea, prosecutions for trivial technical offences acquired a deterrent effect altogether out of proportion to the real importance of the case or the severity of the punishment. Moreover, it was not so easy to escape detection when every customer and every rival trader was a potential witness. In country districts, where the view of the producer predominated over that of the consumer, it was naturally more difficult to secure enforcement. Sides of bacon, fresh butter, and a leg of lamb could be picked up on a farm by a willing buyer at prices exceeding the legal maximum. No amount of enforcement could prevent such leakages. The surprising thing to those who worked in London was the loyalty with which even farmers, the most independent and individualist class of producers,

accepted and observed most of the edicts of the Food Controller. A strike of farmers would have brought down the whole edifice of food control as completely as communism (in the economic sense) has been smashed by the peasants' passive resistance in Russia. But the Food Controller was generally wise enough to see that the farmer did not actually lose by the prices fixed. Indeed his policy, in the case of milk and potatoes for example, was intended as much to stimulate production as to prevent exploitation.

It may be well at this point to consider various objections advanced against the whole policy of attempting to control prices during the war. Before the establishment of the Ministry of Food every one would have agreed that price control was dangerous, most would have said that it was impossible, and a large number would have said that it would be worse if it succeeded than if it failed. The view that even if it was successful, it was inherently unsound and vicious, even in time of war, is still commonly held.

In support of this position two main grounds are advanced : first, that it discourages production, and second, that it encourages or fails to restrict consumption. In regard to the first argument a distinction is sometimes drawn between industrial and agricultural production. It is argued that limiting the profits of manufacturers by price fixing may do no harm provided it is limited to a short period and the State itself looks after any capital developments that may be necessary as during the war. But agriculture is more liable to be upset by State interference. The quickest way to stimulate a maximum increase in production is to allow prices to rise to their fullest possible extent. Any interference with this process will *pro tanto* check the rate of increase and may even cause a decrease. The second argument follows similar lines. The surest way of checking consumption, which is essential in time of war, is to allow prices to rise faster than wages and salaries, which represent the largest proportion of the nation's purchasing power. To the extent to which consumption is reduced by high prices, production is set free for military purposes. The Government therefore should have obtained its own requirements as it thought fit, leaving civilian supplies to the uncontrolled play of market forces. It might be added that if the Government had taken a larger proportion of the national income by taxation,

credit and currency inflation would have been reduced, prices would not have risen so high as they did, and the rich would have had to curtail their consumption as well as the wage-earners and middle classes. The real effect of rationing and maximum prices according to this argument was to increase consumption, by placing within reach of all commodities which many would otherwise have done without or consumed in smaller quantities. It is even alleged as a fact that the introduction of bread rationing in some countries led to an immediate increase in consumption.

These objections deserve examination. They may be valid under certain circumstances and not under others. As regards production, the effect was sometimes discouraging, sometimes the reverse. For example, a guaranteed fixed price in advance for potatoes, milk, and wheat, when there was always the risk of a glut or a slump if the war came to an end, had a directly stimulating effect on production. On the other hand, a low price for butter and a moderate price for meat discouraged production. But in these cases there were valid reasons for not stimulating the production of butter and the fattening of live stock, owing to the shortage of tonnage and the lack of fodder; when fodder was deliberately excluded from the import programme to make room for munitions, dairy herds and live stock had to be diminished. Price fixing therefore does not necessarily diminish production even in agriculture. If the price is fixed beforehand at the time of sowing and is sufficiently high to cover cost of production and ensure a certain profit, production of that particular commodity may be stimulated; for a guaranteed price and a certain return may be more attractive than the speculative risks of a free market. Even when price fixing is deliberately depressing in its effects on one commodity, such as butter, it may have the negative result of stimulating the production of another, such as milk or cheese. Rightly considered therefore and judiciously applied, price fixing is the instrument for securing the production of the commodities most required in the general interest; and in time of war the general interest could within broad limits be interpreted in terms of a definite economic programme.

On the side of consumption the arguments against price fixing, subsidies and rationing are perhaps economically sounder

but practically and politically less tenable. Consumption is reduced by high prices ; but at the expense of the poor, not of the rich. In times of acute shortage the poor might be altogether deprived of an essential food. But even short of starvation for the many, it is politically impossible in time of war to allow the rich complete freedom to buy what they will. The workers and their dependants must not only be fed, if they are to work hard, but they must be kept reasonably contented. Strikes are inadmissible, but so is coercion. In peace workers can be forced to submit to a lower standard of living by unemployment, dismissals, and lock-outs. In time of war these draconian methods endanger the nation's fighting efficiency. The only hope of reducing consumption is by rationing all alike ; there is then some chance of obtaining consent to substantial reductions. As for the argument that rationing increases consumption, this was not true of the articles most severely rationed in Great Britain. Meat, butter, and cheese were consumed in smaller quantities during the rationing period. Smaller imports were possible both of these commodities and of the feeding stuffs necessary to produce them at home, with the result that tonnage was released for munitions and troops. Bread was never actually rationed. Where in other countries the consumption of bread increased with the introduction of rationing, the reason is probably to be found either in the unduly low consumption among the poor before the event or in the inefficiency of the rationing system which allowed duplication and excessive issue of bread cards. It was certainly not the experience of Germany that bread rationing was accompanied by an increase of consumption.

But this objection to the policy of price fixing may be stated more generally. It is argued that by reducing the price of one commodity additional purchasing power is released for other purposes. There is thus no general reduction of consumption. Moreover, the increased purchasing power thus rendered available will stimulate the production and sale of commodities that it may be undesirable to stimulate. To try to stop profiteering by fixing the price of a few commodities will merely increase profiteering elsewhere, and an extension of the process is like trying to stop up holes in a sieve. So long as the free play of supply and demand

continues unchecked in any large part of the whole field, blind economic forces will frustrate the best endeavour to organize the national economy. This objection has a large element of truth, but war experience showed that in practice it was not so serious as might have been expected.

In the first place, it was certainly true that partial intervention involved further intervention. To control the price of milk without controlling butter and cheese, or to control butter without controlling margarine, would have been futile. To have cheapened cereals without controlling meat and fats would have caused a run on cereals. To attain the right balance between the maximum prices of a number of kindred and alternative foodstuffs (as is illustrated in the discussion of dripping prices on p. 241) was admittedly very difficult and the results were often arbitrary and imperfect. But when the staple foodstuffs had been covered (the Ministry of Food controlled in one way or another about 90 per cent. of the nation's food supply) there came a point where the process could stop without risk. Rare foodstuffs could be left to market forces with the knowledge that they would provide a few luxuries for the rich and big profits for a few traders, but without fear that their production would be enormously stimulated at the expense of staple foods. If there was any such danger restrictive measures or even total prohibition could, if necessary, be applied.

It is also true that maximum prices for food, combined as they were with high profits and liberal wages for many classes of workers, diverted purchasing power to other commodities. Fewer pianos, fewer cotton and linen goods, and fewer household utilities of many kinds would have been bought, if food prices had been higher. In the case of some articles, like cotton and wool textiles, the extravagant demand from domestic consumers reduced the quantity that could be exported, a fact of some importance for the national war effort before America entered the war. There were undoubtedly many people of all classes who could have afforded to pay higher prices for their food. But this does not alter the fact that the majority, or at least a very large section, could not have afforded to pay more without an increase in their wages, salaries, or incomes from investment. And to have had

different levels of price for the same foodstuffs varying according to the income of the purchaser would have been administratively impossible. Moreover, the additional purchasing power released by maximum prices was not altogether spent in other ways; it might be saved, and the large amounts invested in War Loans and Savings Certificates show that this was not negligible. To an increasing extent it became impossible to buy luxuries, and even comparative necessities like petrol and paint were severely restricted. Further, to the producer, trader, and shopkeeper, price fixing meant an actual curtailment of purchasing power, since their profits were limited, generally to a greater extent than their expenses were reduced by the same process applied to the goods they had to buy. In short, the process may be described as a transference of purchasing power from the producing and trading classes, and persons deriving their income from shares in companies engaged in production and trade, to the wage-earning and *rentier* classes. It thus had the opposite effect of war-time inflation.

The relation of price control to inflation is worth examining since it leads to the heart of the objections that have been considered. If the general rise of prices was due to inflation and if inflation was inevitable as a war-time measure, was not price control an illusory attempt to escape from the evils of inflation, and limitation of profits an impossible and unfair method of interfering with the natural effects of war finance?

Lord Rhondda in November 1917,¹ in reply to critics who expected him to perform miracles and by a wave of the wand bring back prices to their pre-war level, said, 'The real controller of prices is not the Food Controller but the Treasury. The principal factor in the rise of prices is the expansion of currency arising from inflation of credit and the issue of large amounts of paper money.'

This explanation had never till that time been so frankly admitted by any member of the Government. During the first year of the war it was usually denied that any inflation had taken place. After the war it was accepted as a commonplace and the general view was that inflation during war-time is inevitable.

¹ *Parl. Debates, H. of Lords*, vol. xxvi, 1077, November 20, 1917.

But was inflation inevitable? Was not the policy of controlling prices and the mechanism by which that policy was enforced an important means of checking inflation? If the policy of price control had been systematically and continuously applied from the beginning of the war, was there any reason why the pre-war volume of currency should not have sufficed for financing the war? This of course is a purely hypothetical question, for (as has been constantly emphasized in the preceding chapters) price control at the beginning of the war was psychologically and legally impossible. But in order to realize the full import of the policy, it is worth while attempting to give a hypothetical answer to this question.

It will have been observed that in each of the trades which have been referred to in this book the outbreak of war caused a sudden and severe slump in prices. The price of jute, for example, fell from £30 per ton to £14 per ton in three or four months. This phenomenon was general, and was caused partly by the sudden cessation of demand from Central Europe and partly by the financial crisis which made every creditor anxious to collect his debts and compelled every debtor to realize his stocks at any price in order to meet his creditors' demands. The volume of credit shrank and a rapid liquidation set in. This was equivalent to the disappearance of a large part of the currency of wholesale trade. Bank deposits and advances contracted; and commercial bills running into tens of millions of pounds in value became suddenly worthless. This was deflation on a prodigious scale. The effect was somewhat similar to that which would be produced if it was suddenly announced that a large proportion of the paper money in the country consisted of worthless forgeries which would not be accepted by the banks.

To some extent the deflation was immediately checked by the Government undertaking through the Bank of England to guarantee the dishonoured bills. This restored a large block of currency which would otherwise have been annihilated. But restriction of credit and deflation continued for several weeks; prices fell below costs of production; heavy losses fell on holders of stocks; and unemployment assumed formidable proportions. The removal of Central Europe from the world market and the

uncertainties of the future caused an acute financial and commercial depression.

If at this stage complete State control had been introduced in the form in which it was eventually realized during the last six months of the war, what would have been the position? Trade and industry would have been organized under centralized direction, exercised either direct by a Government Department assisted by Advisory Committees or by a Joint Control Board representative of all interests and vested with compulsory powers, for the attainment of the following ends:

1. Centralized control of purchase, import and distribution of raw material.
2. Maximum production of military requirements.
3. Production of essential civilian requirements for home consumption.
4. Maximum balance available for export.

Prices would have been regulated on the following principles:

1. Purchase of imported raw materials and foodstuffs in bulk from producing countries at lowest prices obtainable, where possible by contract for several years ahead.
2. Requisition of foodstuffs from farmers at guaranteed maximum prices based on cost.
3. Manufacturers to receive for whole output fair conversion costs and moderate profit.
4. Wholesale Distributing Merchants syndicated into Trade Associations and remunerated as Government agents at reasonable rate of commission.
5. Prices of civilian necessities of life, food, clothing, household utensils, &c., to be fixed at cost price and reasonable margin.
6. Export merchants formed into Associations and remunerated on commission.
7. Prices of exports determined by world market prices with profits or losses for the account of the central Fund of the Industry.

With trade and industry so organized the huge demands for the military forces would have been met without difficulty and

more rapidly than they were under a régime of competitive buying. Private orders that stood in the way would have been thrust aside. But these private orders themselves would have been submitted to a process of sifting and transformation. The essential demands for home consumption would have been looked after by the Department or Control Board charged with supervising them. If industry had been unable at any time to supply all the legitimate demands an order of priority would have been established; and if owing to exceptional pressure of military requirements or the need for encouraging the maximum export, supplies for home consumption had had to be seriously restricted, the limited supplies available would have been rationed and distributed as fairly as possible. None of these measures would have necessitated prices rising above a reasonable maximum price based on cost.

The necessities of war would have compelled much larger import of certain commodities, machinery, ores, food, and raw material. This might have necessitated paying increased prices owing to a general world shortage. But not necessarily so. Advantageous long-term contracts made at the outset of war might have secured largely increased imports without the necessity of paying more than average pre-war values. For example, the purchase of the Australian wool clip two years earlier on a five-year contract might have been negotiated on more favourable terms than were actually agreed to in 1916, owing to the depression ruling in the world market at the time. Australasian meat was in fact bought in October 1914 by the Board of Trade at a price of $4\frac{1}{2}$ per lb., which owing to inflation gradually became worth half the contract figure and was never increased up to the end of the war. Secondly, increased imports of some commodities would have been largely compensated for by drastic reduction of less important imports. Large sums were spent abroad during the first three years of the war on articles which made no contribution to the successful prosecution of the war and were in fact dispensed with during the last year. Thirdly, though exports might still have been necessarily reduced much below their pre-war volume, it by no means followed that their value would have been reduced. Even the volume might have been greater

than it was, given a more systematic organization of industry. The volume exported during the war was quite unnecessarily reduced by the measures adopted for restricting exports, as an indirect means of keeping prices low at home and safeguarding supplies for essential purposes. By more detailed control and a better-informed grasp of the situation in each industry, more goods might have been exported than were actually allowed to go. Prices obtained for export, again, might have been higher than they were, if selling had been concentrated in a single body in each trade and the full possibilities of the world market exploited to the utmost. For with Central Europe out of the world market, the demand for certain manufactured goods which had formerly been met by Germany became transferred to some extent to Great Britain. Further, there was a growing world shortage of many articles, such as clothing and metal goods, owing to the huge consumption of the armies; and monopoly prices in these lines might have been obtained. As it was, foreigners often made large profits at our expense by buying cheaply behind the barrier of restrictions and prohibitions, and then getting a licence to export.

It will be objected that other countries would hardly have been so gullible as to let their exports go at pre-war prices and submit without retaliation to exploitation in the prices paid for their imports. It is questionable, however, whether without establishing a corresponding control of imports and exports they would have been in a position to interfere effectively. Raw materials and food were throughout the war undervalued in the world market compared with manufactured goods, owing to the fact that the consumption of the former and the production of the latter had both been reduced by the cutting off of Central Europe. It will also be objected that though this policy might, owing to their unfortunate economic situation, have been successfully applied to Australia, New Zealand, Africa, and Asia, there was no means of getting the better of North and South America, which supplied us with many essential raw materials and wanted only a small amount of our manufactures. This objection is a valid one; but three considerations may be advanced in reply. First, exports to America might have been increased if deliberate effort

had been made to do so ; secondly, sales of foreign securities might have been increased ; and thirdly, far less would have been purchased in the United States if industry had been mobilized sooner in Great Britain.

Lastly, it will be urged that, however complete the control imposed on trade and industry, the immediate transfer of purchasing power from private individuals to the State, which the situation demanded, could never have been accomplished without some measure of inflation. Taxation, that is to say, was not a sufficiently elastic device to provide the immensely increased purchasing power which the Government required, however low prices were kept by control. Recourse to the disguised form of taxation, proportionate to income, which inflation involves, was therefore necessary. No doubt immediate Ways and Means Advances from the Bank of England would have been necessary ; but the idea that taxation could not have been suddenly increased even to the extent of doubling the Income Tax is surely erroneous. Faced with an income-tax of, say, ten shillings in the pound, many persons and firms might have been compelled to borrow more from the banks, and to this extent there would have been inflation. But that such advances would have been paid back sooner than advances by the banks to the Government can hardly be doubted. Every taxpayer would have seen his share of the National Debt piling up against him individually at his bank instead of being piled up on his account by the Government ; and apart from the pressure which would have been put upon him by his bank, he would himself have had every inducement to try and clear himself as soon as possible by practising the utmost economy. It was only by the economy actually practised that the Government did obtain command of the resources it required ; but the compulsory economy induced among *rentiers*, among the salaried and professional classes, and to some extent among wage-earners, was largely offset by the involuntary fortunes made by the producing and distributing classes ; and therefore, apart from its gross injustice, inflation was never a very effective way of securing the maximum transfer of wealth to the State. Indeed, inflation is generally recognized to be quite the most unscientific and wasteful form of taxation ever devised.

Hypothetically, then, there is much to be said for the view that inflation could have been avoided or at any rate reduced to much smaller proportions, if a policy of complete State control, combined with such measures of taxation as almost to amount to 'conscription of wealth', had been adopted. The technique of price control has an additional importance, if it can be regarded as a means whereby some of the evils of war-time finance might have been avoided.

CHAPTER XXIV

THE STATE AS IMPORTER

Reasons for State purchase — Sugar — Meat — Flax — Kips — Jute — Wool — Hemp — Butter and cheese — Oilseeds — Summary of reasons — Methods of purchase — Dominions — India — Crown Colonies — Egypt — Russia — United States — Neutral countries.

Purchasing organization — Union of official and business methods — Variety of forms — Centralization in wool — Decentralization in oilseeds — Buying agents in flax and hemp — Contrast with jute — Official Buying Mission for food purchases in U.S.A. — Semi-official trade organization in butter and cheese.

Must State import be a monopoly ? — Conditions of success in Government trading operations — Business men as officials — Charges of incompetence — Competition versus centralization the issue — Recent tendencies in producing countries.

THE most striking feature of State intervention in most of the trades and industries with which this volume is concerned was the import of raw materials and foodstuffs on Government account. This was the key to nearly all the subsequent measures of control. In order to intervene effectively in distribution and manufacture the Government was compelled to obtain actual possession of staple commodities at the source. The different measures by which this was accomplished will be considered in this chapter.

Reasons for State purchase

The main reasons that led to the development of State import may be recalled by briefly summarizing the order of development. The earliest example of import monopoly was that created by the appointment of the Royal Commission on Sugar Supplies in August 1914. The reason for this step was the cutting off of the normal source of sugar supplies in Central Europe and the necessity for taking special measures to obtain supplies elsewhere with the least possible disturbance in the world market. Government monopoly and the elimination of competitive buying by private merchants was considered to be the most effective way of accomplishing this object.

In October 1914 the Board of Trade undertook at the request of the War Office to purchase the frozen meat required by the Army and for this purpose negotiated direct with the Australian and New Zealand Governments. In this case there was no Government monopoly, supplies for the civilian population being left to be provided by private traders.

The first experiment in State import described in this book was the purchase of Russian flax by the War Office, which began in March 1916. By this step the War Office undertook, not merely to supply its own requirements, but to provide raw material for civilian trade. The chief grounds for intervening were the difficulties experienced by private traders and manufacturers in obtaining transport on the railways to Archangel, and the speculation which was forcing up prices and causing confusion in the interior of Russia. But the decision was also influenced by the desire of the War Office to stabilize prices and to apply the costings system to the manufacture of linen goods.

In May 1916 raw kips were purchased and imported from India on Government account, partly in order to check speculation and to reduce prices, but mainly in order to increase the supply of raw material for army boots. At first Government purchase was limited to hides suitable for military purposes, but at a later stage it became necessary for the War Office to buy the whole output of kips and to resell those unsuitable for military purposes for use in the civilian trade.

In August 1916 the War Office decided to provide the raw material required for the manufacture of jute goods for military purposes, but left the supply of jute for civilian purposes to private trade. In this case there was no shortage in the country of origin ; but owing to the scarcity of tonnage the Government had to restrict the importation of jute and ensure sufficient supplies for its own needs at a reasonable price.

The purchase of the Dominion wool clips in November 1916 was at first intended to apply only to the raw material required for military purposes, but owing to the representations of the Dominion Governments it became necessary to buy the whole of the clips and establish a complete monopoly. The main objects were to safeguard supplies, to check speculation and the constant

rise of prices, to provide a stable foundation for the application of the costings system, and to determine the exact quantity and quality of the raw material to be imported.

In the case of Manila hemp, the import of which was monopolized by the War Office in April 1917, the main objects were to check the rise of prices and to ensure that the limited amount of tonnage available was used to the best advantage.

At the Ministry of Food, towards the end of 1917, meat, butter, and cheese were purchased on Government account for the purpose of guaranteeing supplies for civilian consumption at the lowest possible price. By this time the market prices ruling in the different countries of origin varied considerably owing to local differences in the relation of supply and demand. Owing to the shortage of tonnage and restrictions on the free movement of shipping, the price of meat was low in Australia and New Zealand, fairly high in South America, and higher still in the United States. Similarly the price of butter varied from over 400s. per cwt. in Denmark to 150s. per cwt. in Australia and New Zealand, with intermediate prices ranging from about 170s. to 200s. per cwt. in the Argentine and Canada. Under such conditions Government monopoly of import was the only means of ensuring that the selling price in Great Britain was kept down to the average cost by pooling supplies from all sources.

In the case of oilseeds, Government purchase was necessary in order to stabilize the issue price of raw materials to manufacturers, and to apply the costings system and fixed margins to the various processes of transformation from the raw material to the finished article. Government purchase of foodstuffs was also necessary to secure the most economical use of tonnage and finance, and to prevent competitive buying between the different Allies.

In general, then, the reasons for State import may be summarized as follows :

1. To safeguard supplies for military purposes when private trade could not be relied upon.

2. To check speculation and competitive buying on the part of private traders.

3. To stabilize basic prices and thus render it possible to

regulate prices throughout the various processes of manufacture and distribution by the application of the costings system.

4. To secure supplies for civilian purposes, either because private trade was unable to cope with the task or because it was inconvenient to distinguish between military and civilian supplies.

5. To secure the most economical use of tonnage and finance by deliberate selection of the exact quantity and quality, which it was most advantageous to import.

6. To avoid competition between the Allies, and to assist Allied countries by obtaining supplies for them under the most favourable conditions.

7. To keep prices for civilian consumption as low as possible by pooling the cost of commodities obtained at varying prices from a number of different sources of supply.

Methods of purchase

Since the actual methods of purchase depended to a large extent upon conditions ruling in the country of origin, it will be convenient to compare the broad differences that were met with in the principal exporting countries. In 1917 and 1918 to those responsible for obtaining supplies from abroad the world was divided into three categories, black, white, and grey. Black was the enemy territory, where no supplies could be looked for ; white was the British Empire and Allied territory ; grey, the lands which were neutral. Purchases in white territory were comparatively easy ; in grey more difficult. But the British Empire and the Allies together covered such a large proportion of the earth's surface that there were not many raw materials or foodstuffs that could not be obtained there. Taking the British Empire first, the methods of purchase may be broadly distinguished as follows :

1. *The Dominions.* The Commonwealth Government in Australia and the Department of Imperial Supplies in New Zealand made themselves responsible for purchasing, collecting, storing, and shipping their principal foodstuffs and raw materials as agents for the British Government. Long-term contracts, generally for the whole exportable surplus, were concluded between the British and Dominion Governments at fixed prices.

The chief commodities so purchased were wheat, wool, skins, hides, hemp, meat, butter, and cheese, apart from lead and other commodities bought by the Ministry of Munitions. Purchases of foodstuffs were also made in Canada through the Canadian Government.

2. *India.* The Government of India acted in a similar manner in regard to a number of commodities, such as wheat, hides, and oilseeds. In India, however, owing to its vast size and its illiterate population, there could never be the same direct relations between the Government and the producer as in Australia and New Zealand. The internal markets for grain, jute, and linseed, for example, were left free; purchases for export were made at prices ruling from time to time, and were not fixed once and for all as in the case of contracts with the Australian and New Zealand Governments. In consequence, the British Government sometimes arranged to deal direct with shippers, as in the case of jute and some oilseeds; and in other cases obtained supplies from agent firms controlled by a commissioner appointed by the Government of India.

3. *Crown Colonies.* The system adopted in Crown Colonies varied in different circumstances. The Governor of Ceylon acted as agent for the British Government for the purchase of coco-nut oil. In West Africa oilseeds and palm oil were not bought by the Government, but export was prohibited to all destinations except the United Kingdom, where supplies, for which tonnage had been specially provided by the Ministries of Food and Shipping in their Import Programme, were requisitioned on arrival at fixed prices. This was one of the rare cases where the Government was willing to pay for imported supplies on a c.i.f. basis, that is, with freight and insurance added to the cost; but since after the general requisitioning of tramps and liner space, profits on freight went to the Ministry of Shipping, the system differed only slightly from direct purchase and import.

4. *Egypt.* A system similar to the Australasian precedent was adopted in Egypt for the purchase of cotton seed. By arrangement with the Egyptian Government a Cotton Seed Control Board was set up to purchase the whole exportable surplus of cotton seed at a fixed price on behalf of the British Government. A similar method was afterwards applied to Egyptian cotton.

5. *United States.* When America entered the war and the United States Government assumed control of exports, purchases by the British Government were made there by special Buying Missions, which bought either from the United States Administration or with its permission at prices and from sources indicated by it. In this manner the Ministry of Food bought frozen meat, canned meat, bacon, butter, cheese, dried and condensed milk, oils and fats, and canned fruits. In addition wheat was bought through a special agency created by the British Government, called the Wheat Export Company.

6. *Philippines.* Manila hemp was bought through the agency of British firms without the intervention of the United States Government.

7. *Russia.* Flax and flax seed were bought in the interior of Russia by four established British firms operating as Government agents. The Russian Government gave priority for War Office purchases on the railway to Archangel, and provided roubles against sterling in London. This scheme supplies a rare instance of the British Government buying direct from peasants in the producing country.

8. *France.* Hides, butter, and cheese were obtained in small quantities with the assistance of the French Government.

9. *Neutral countries.* As a rule purchases in neutral countries were made without the intervention of the Governments. For example, in the Argentine linseed was bought in competition with the rest of the world through agent firms operating under the supervision of the Wheat Commission. In Denmark butter and bacon, and in Holland cheese and flax, were bought in competition with German and Austrian buyers. But gradually even the Governments of neutral countries were compelled to intervene in these negotiations. They either regulated the quantities to be exported or the price to be paid, or established an export monopoly, as in Holland. As the rationing of European neutrals became more severe exports to the United Kingdom became an important bargaining asset, and quantities and sometimes prices, e.g. of Dutch margarine and cheese in exchange for oilseeds and oilcakes, would be settled between the British and Neutral Governments.

Purchasing organization

Just as the method of purchase in the country of origin varied in different commodities according to local conditions, so there was considerable variety in the form of purchasing organization set up by the British Government. Attention has been drawn before to the absence of any common plan of organization and to the fact that each new emergency was tackled as a problem by itself with little reference to the precedents established in other spheres. This lack of uniformity had its compensating advantages; it meant that the field was left open for experiment and that an opportunity could be given to each Controller to give free play to his own initiative. There was no recognized model for the organization of State import. The method adopted usually represented a compromise between official routine and business methods.

The union might take one of two forms. Either the methods and functions of a private business were grafted upon a Government Department, as in the purchase of flax and jute; or the methods and functions of a Government Department were undertaken by a body of private traders, like the Butter and Cheese Imports Committee or the United Kingdom Oilseed Brokers Association. The former procedure introduced commercial enterprise into a Government Department, the latter converted a group of private firms into a branch of the public service.

In the early stages of the war the methods adopted conformed more closely to the usual official practice. The Government, even in times of peace, is probably the largest single purchaser in the country, and employs a number of officials to do its buying. The War Office, the Admiralty, the India Office, the Post Office, the Crown Agents for the Colonies, and the Office of Works all have their Contracts or Stores Departments, staffed by a trained personnel, who probably buy as cheaply and efficiently as the officials of the London Traffic Combine or the large multiple shops. As in the case of most large firms, the regular official practice was to go straight to the source and to buy direct without the intervention of intermediaries. The employment of agents, brokers, and middlemen was contrary to the general rule.

It was natural, therefore, that early developments in State

purchase should follow traditional lines. When the Government needed meat for the Army, or wool for military clothing, the plan adopted was to create a special sub-department to carry through the transaction in the simplest and most economical manner. The purchase of meat was entrusted to a branch of the Board of Trade, and the purchase of wool to the Raw Materials Department of the War Office. In both cases the purchase was completed in a few days by entering into long-term contracts with the Australian and New Zealand Governments. Private trade was thus eliminated automatically. In the case of wool, thousands of clerks, managers, and directors, who were normally engaged in attending to individual transactions and cargoes, were replaced by a single office consisting of about a hundred clerks and a dozen or so experts, in which was centralized all the documentary work of buying, shipping, and distributing the colonial wool clips.

This system was probably as economical as any that could have been devised, and it arose naturally out of the regular official practice of dispensing with intermediaries. But the excessive centralization which it involved was bound to cause hardship and discontent among the firms who lost their usual business; and the creation of a brand new organization, whatever advantages it might have from the point of view of economy and simplicity, was bound to take a considerable time, and to place a heavy burden on the officials responsible for selecting the right staff and getting the machinery into working order. Moreover, there were strong reasons for avoiding any undue dislocation of the usual trade channels in view of the temporary character of Government control.

These various reasons, and above all the need for securing the willing co-operation of traders in the administration of control, led the Ministry of Food to discard the plan of centralizing in its own hands all the operations of an importing firm. In the case of oilseeds, the handling of shipments on arrival and most of the detailed accounting and documentary work were entrusted to the United Kingdom Oilseed Brokers Association, a body consisting of all the recognized brokers in the trade combined together in a single organization for the purpose of acting as Government agents. The plan adopted for the purchase of Egyptian cotton seed provides a good illustration of the new method of delegating

responsibility. A Cotton Seed Control Board consisting of the leading men in the trade was established by the Egyptian Government in Alexandria, for purchasing the seed at fixed prices from the Egyptian growers. The necessary funds were provided by the National Bank of Egypt against a general guarantee from the British Treasury. On arrival of the goods in Great Britain they were allotted by the Crushers Advisory Committee to various mills. The Oilseed Brokers Association handled the shipping documents, looked after the discharge and forwarding of each consignment, and reimbursed the Bank out of the proceeds of sale to the manufacturer. Throughout the whole process the intervention of the Ministry of Food was reduced to a minimum. The original contract to take the whole exportable surplus at a fixed price, the Treasury guarantee to the Bank, and periodical instructions to the Oilseed Brokers Association as to the arrival and disposal of cargoes were practically all the work that fell on the Government. The detailed administration of the scheme was left in the hands of the trade itself.

In the case of Russian flax the circumstances were in many respects exceptional. Owing to the disorganization on the Russian railways and the closing of the Baltic ports to British ships, the difficulty was to get supplies from the interior to the port of shipment at Archangel. If either the Russian Government or private Russian exporters had been able to guarantee delivery at Archangel, the War Office would have been able to buy the flax delivered f.o.b. and then merely arrange with the Admiralty or Ministry of Shipping for the provision of the necessary tonnage. But the principal exporters of flax were not Russian firms but British. Four of the largest flax shippers in Great Britain had been established in the interior of Russia before the war, and had numerous buying agencies in the flax-growing districts. The War Office therefore appointed these four firms Government buying agents, paying them a fixed commission per ton to cover their expenses and remuneration. In this manner the British Government bought flax direct from the Russian peasant in much the same way as it bought wool from the English farmer. Arrangements could then be made with the Russian Government for War Office flax to be carried on the Russian railways as British

Government stores, and for the necessary roubles to be supplied in exchange for sterling in London without every transaction having to pass through the foreign exchange market. The prices paid varied from time to time according to market conditions in the interior of Russia. But the fact that export was virtually monopolized in the hands of the British War Office exercised a steadying influence on the internal price level.

The arrangements for buying Manila hemp bore a certain resemblance to the Russian flax scheme. The principal British shippers had branches in the Philippines and were thus able to buy for the British Government direct from the growers or from local dealers. The only difference that Government purchase made was that the War Office became responsible for providing finance and tonnage, that the British shippers combined together instead of competing with one another, and that their profits were limited to the amount by which the fixed margin per ton allowed to them exceeded their establishment charges and buying expenses. In other respects the purchase and import of both flax and hemp were conducted in much the same way as in ordinary times. The regular importers continued to function in the usual way, but received a controlled margin of profit in place of a speculative rate of profit depending on the state of the market in the producing and consuming countries.

The reason why the same procedure was not adopted in the purchase of raw jute has been explained in Chapter VII. There was never any shortage of raw jute in India during the war. The War Office was therefore able to obtain its own requirements more cheaply by inviting competitive offers for delivery f.o.b. Calcutta than by attempting to buy in the interior or by guaranteeing a fixed margin of profit to British importers. No long-term contract was necessary or desirable, and purchases were made from day to day in the London market or by cable to Calcutta in exactly the same way as a large business firm might have bought. The success of this system depended chiefly on the fact that Mr. George Malcolm, who undertook the purchase of raw jute for the Government, was one of the foremost experts in the trade.

Two other forms of organization were introduced at the Food Ministry, the official buying mission, and the semi-official trade

organization. The official buying mission was used in the United States, where the Food Administration insisted that only Governments should buy prohibited exports and then only with the advice and approval of the United States authorities. The British and other Food Missions in the United States resembled the Allied Buying Missions which were set up early in the war in Great Britain. They were combined in a body called the Allied Provisions Export Commission, which ensured co-ordination but was not an actual purchasing organization. The Buying Mission made purchases from day to day, on cabled instructions from the Ministry of Food in London. A single contract was made at one time for the purchase of £400,000 worth of bacon. The machinery of private trade was dispensed with as in wool purchase, but one reason for this was that purchases of provisions on such a large scale in the United States had not been a normal feature of trade before the war. Owing to the concentration of shipping in the Atlantic new buying machinery had to be specially created by the Ministry of Food. But the recognized importers of provisions were generally employed as agents for looking after the receipt and distribution of cargoes on arrival in British ports.

In the case of butter and cheese the buying organization acting on behalf of the Ministry of Food was a committee of private traders called the Butter and Cheese Imports Committee. This Committee was established by the Food Controller in December 1917 to take over the responsibility for shipment, handling, inspection, storage, and distribution of butter and cheese under the direction of the Ministry of Food. Its financial operations were subject to control and audit by the Ministry and were guaranteed by the Treasury. A fixed commission of $\frac{1}{2}$ per cent. was credited to the Committee to cover the expenses of administration.

From this review of the various methods of purchase adopted certain general conclusions may be drawn.

1. Where the Government required raw materials or food-stuffs for supplying its own requirements, the usual official routine could be followed, especially where all that was necessary was to buy from the usual importers in the London market.

2. Where the Government's own requirements amounted to a large proportion of the total imports, it was desirable where

possible to make arrangements with the Governments of the exporting country for a long-term contract at a fixed price as in the case of frozen meat for the Army from Australia and New Zealand.

3. Where no arrangements could be made for a long-term contract at a fixed price, it was preferable for the Government to buy f.o.b. from private exporters rather than c.i.f. from importers in London. The best course in such cases was to employ the services of an expert buyer who knew the trade and was in a position to take advantage of the most favourable opportunities for buying.

4. Where owing to transport or other difficulties private trade was unable to bring forward sufficient supplies, or where it was impossible or inconvenient to discriminate between supplies required for military or civilian purposes, the Government was compelled to establish a State monopoly of import in order to safeguard supplies and control prices.

5. State monopoly might be administered either by employing a large number of trade experts as salaried officials as in the case of wool purchase, or by employing private firms on agency terms.

6. The Government purchasing agents might buy either from local producers and dealers f.o.b. port of shipment, or where necessary from peasants in the interior.

7. In either case the agent firms would be remunerated by a fixed margin to include their establishment charges and buying expenses.

8. While the general supervision of the agents' operations and the provision of tonnage and finance rested with the Government, the detailed work could be conducted on the usual commercial lines by the firms normally engaged in the trade.

9. Decentralization might proceed still further through the appointment of a trade organization guaranteed by the Treasury and subject to Government audit and a fixed rate of remuneration.

General features

It may be useful to consider in the light of war experience two questions about Government trading operations that are often raised. First, must import on Government account be

a monopoly or could it be carried on side by side with private trade? And, secondly, could the Government buy as efficiently and economically as the machinery of private trade?

In March 1916 the purchase of Russian flax was declared a State monopoly; Indian jute, on the other hand, was bought by the War Office, from the summer of 1916 till the Armistice, for military requirements alone in competition with private traders. The Board of Trade was buying frozen meat for the Army as early as October 1914, and continued to do so for a long time, before it became necessary for the Ministry of Food to monopolize meat supplies for the whole country. For some months before the Royal Commission on Wheat Supplies was set up to undertake the entire provisioning of the country in grain, Government purchases were being made to a limited extent in competition with private traders by the Wheat Import Committee.

The explanation of these opposite policies adopted at different times and in different cases will be found to lie in the degree of shortage in the sources of supply. The only way to be sure of getting enough Russian flax was to eliminate as many competitors as possible. Jute, however, was so abundant that a complete import monopoly, by depressing prices still further, might have started a demand for a guaranteed price for the whole crop, which was far more than the country needed. The Board of Trade bought meat for the Army under long-term contracts at more favourable prices than the civilian population had to pay. It might, indeed, have proved advantageous for the nation if the whole supply required had been bought by the Government from the beginning of the war in a similar way. Three years later the Ministry of Food had to do this at a much higher level than the contract prices paid for Army supplies. But purchases for the Army alone presented no difficulties, since there were other sources of supply left open to private trade. The case of wheat, on the other hand, illustrates the danger of limited State purchase where there was a world shortage of supply. As private traders had no means of knowing the exact quantities bought by the Government and were afraid of being undersold at any time through the Government unloading its stocks when supplies were short and prices high, they hesitated to enter into commitments themselves and

thus forced the Government to buy more and more ; it was then seen that a complete State monopoly was the only alternative to complete freedom.

In general then it may be said that whereas it was feasible to obtain supplies for the Government's own needs, e.g. for the Army and Navy, without creating a Government monopoly, purchases made in order to resell to the civilian population had to be either left free or completely controlled. The Government had such vast financial resources behind it and was naturally so disposed to be governed by considerations of policy rather than of profit, that private traders did not feel safe when the Government was competing with them. This principle did not exclude forms of control whereby the Government expressly recognized the sphere of certain private importers side by side with its own activities, and in fact guaranteed them a fixed price for their produce on arrival. This form of control existed in the case of South American wool, East Indian wool, and many oilseeds. In such cases, however, the Government was virtually a monopolist, and the private importer was acting as a recognized agent forming one part of a single system.

It is hardly possible to give any answer to the familiar question, ' Can the Government buy as efficiently and economically as the machinery of private trade ? ' It depends on the methods adopted and the skill of the personnel employed. During the war it was of course just because the Government considered in each case that the most efficient and economical method to adopt was direct purchase, that it was compelled, generally against its will, to adopt that course. But it is usually thought so unlikely that a Government should acquit itself even tolerably well in commercial operations, that some explanation is necessary to explain why this was so.

In the majority of cases the Government enjoyed important advantages over private traders. Perhaps the greatest advantage for Government purchase was in those cases where supplies could only be obtained by agreement with another Government, which undertook to provide special facilities. Russian flax was obtained by the War Office, when private importers had failed, because it was given certain privileges by the Russian Government. Goods

bought by the War Office were military stores and were granted priority on the Russian railways. The Treasury was able to obtain roubles from the Russian Ministry of Finance when private traders found great difficulty in doing so. Again, at a later stage in the war, it was only possible to purchase foodstuffs and raw materials in the United States with the consent of the United States Government, and as a rule consent was only given to purchases on Government account. Indeed, in order to strengthen and facilitate Inter-Allied co-operation each Government made concessions to an Allied Government which it would refuse to an Allied trader.

Akin to the above are the instances where the British Government was able to make special arrangements with the Dominion Governments or the Crown Colonies. The usual preliminary was the prohibition of export from the Dominion or Colony except to the United Kingdom. This system often imposed a heavy sacrifice on the producers in the exporting country, as the price level tended to fall below world prices, and sometimes large stocks would accumulate which would eventually be released under an arbitrary system of licences that gave a large profit to the fortunate licencees. Gradually, therefore, as a corollary to prohibition of export except to the United Kingdom, the practice grew up of guaranteeing a fixed price for imports, as in the case of East Indian wool, or of contracting to purchase the whole exportable surplus for a year or more ahead. Favourable contracts could be made in this manner, which would have been impossible to any private trader or combination of traders, owing to the vast scale of the transactions. The purchase of the Australian and New Zealand wool clips by the British Government for the period of the war and one year after at a fixed price is the best example of such large-scale transactions. When this vast deal is contrasted with the ordinary procedure of private trade, which necessitates hundreds of separate transactions each day throughout the greater part of the year at constantly fluctuating levels of price, it will be realized why in spite of its inertia and lack of commercial enterprise a Government Department has resources and advantages, at any rate in time of national emergency, which enable it to compare favourably in efficiency and

economy with the largest, or even with the smallest, private firm.

It was not only, however, in large-scale transactions that the Government succeeded in buying successfully. An examination of the trading accounts for Russian flax and raw jute shows that ordinary commercial transactions could be conducted satisfactorily, provided the services of the best buyers were obtained. In ordinary times such men would be earning too high a remuneration outside to be attracted to the Government service ; but in time of war the Government could command the willing services of the foremost experts in each trade, and pay them little or no remuneration. When the Government's trading operations were carried on by the foremost business men in a trade, it became absurd to generalize about the Government's incapacity to buy and sell in a businesslike manner ; but this fact was perhaps not generally realized, and to the established civil servant it was often a source of amusement to find that business men in Government Departments were often criticized for incompetence and extravagance just as much as if they had been ordinary hide-bound officials.

Lastly, when purchase and import were entrusted to a group of traders, guaranteed by and responsible to the Government but otherwise free to conduct their business as they thought fit, the distinction between Government and private trade became blurred, and the ordinary criticisms were even less applicable. The real distinction and the real controversy, which is likely to continue for many years, is between the respective advantages of centralized marketing and competitive trade. After the war some of the leading butter importers proposed that the centralized system of import, which they had been undertaking for two years on behalf of the Ministry of Food, should be continued through the creation of a statutory Butter Import Corporation by Act of Parliament. The project was never submitted to Parliament, and the reasons why the leading men in the butter trade thought it preferable to continue centralized import under Government supervision in place of free competition have not been made public. The project was doubtless premature.

Since then, however, there are signs that the movement for

centralized marketing is beginning to receive considerable impetus from the producers in agricultural countries. If at any time the producing countries, whether through Government action, or through the co-operative movement, or by means of commercial trusts, succeed in centralizing the sale of staple products, the question of meeting such a move by centralized purchase in consuming countries will again receive attention. In that event the various experiments which were made in centralized purchase during the war may throw some light on the best methods to adopt.

CHAPTER XXV

THE COSTINGS SYSTEM

Profiteering and the costings system — Costing in private business — Machinery of cost investigations — Pre-war indifference to costing — Employment of Chartered Accountants — Work of Costings Department at Ministry of Food — Confidential nature of work — Regulation 2 G — Distinction between items chargeable to cost and to allocation of profits — Adjustment to varying circumstances.

Cost of production in economic theory — Prices normally determined by marginal cost of production — No longer applicable in war-time — Limitation of monopoly profits by costings system — Complexities of applying the costings principle — Distinction of Government requirements and civilian needs — Treatment of importers, wholesalers, retailers, manufacturers, farmers — Objection that costings system gives large profits to best firms — Differential rent under normal conditions — Without costings system war profits would have been larger — Not always necessary to base prices on highest cost — Striking divergence in costs between efficient and inefficient firms — Bearing of this on economic laws — Survival of the unfit increases differential rent — Average costs as basis of fixed prices — Pooling and unification — Application to distribution, manufacture, agriculture.

‘PROFITEERING’ and the ‘costings system’ are expressions to which it would have been difficult for most people to attach any meaning before 1914. Profiteering may be defined as taking advantage of the state of the market to obtain exorbitant profit; the ‘costings system’ is the principle of determining fair prices by reference to the cost of production and a reasonable profit. The costings system thus came to be regarded as the natural and proper cure for profiteering; but like many popular catchwords it suffers from ambiguity and suggests a simplicity which is apt to be misleading. The term is derived from the practice of examining costs, which, as previous chapters have shown, was an essential but comparatively small part of the business of control. By transference one part of the process is taken to signify the whole.

Examination and comparison of costs, or as it is called by accountants ‘costing’, though it received a great stimulus from the war, was of course practised in well-organized businesses long before the war. Its purpose was to enable the directors and

managerial staff to know as exactly as possible the cost of any process or the cost of making or handling any commodity. This not only guided them in quoting competitive prices in the market, but also gave them statistical evidence as to the directions in which greater economy and efficiency could be achieved. Comparison of costs in different workshops and at different times provides the best means of detecting extravagance, waste, and bad organization. The purpose for which the Government made use of cost investigations was rather different. The business man uses costings for reducing costs and increasing profits; the Government used them for ascertaining costs and limiting profits to a reasonable figure. The term 'costings system' therefore covers both the principle of fixing prices with reference to costs, and the methods by which costs were determined and prices and profits were fixed. In this chapter consideration will be given first to the methods employed and then to certain general principles involved.

The machinery of cost investigations

The earliest example of cost investigation referred to in the present volume was the inquiry made in the spring of 1915 in the jute industry. Attempts were first made to arrive at a rough estimate by questioning manufacturers direct. This method had its uses, and throughout the war representative committees of manufacturers and traders supplied a mass of useful information, advice, and criticism on the difficult problem of arriving at agreed costings. But experience showed that the views of manufacturers and traders as to their own costs were often surprisingly wide of the mark. Often they were quite ignorant on the subject, not having been accustomed to employ skilled accountants to conduct cost investigations for their own use. Their guesses, or working hypotheses, were in such circumstances liable to be consciously or unconsciously biased by the desire to drive a good bargain; and a mind habitually devoted to the practice of bargaining is apt to be impatient of exact calculations and the rigours of scientific truth.

Early in 1915 the Army Contracts Department began to employ the services of chartered or incorporated accountants to conduct

cost investigations on its behalf. Two of the leading firms of accountants in London lent the services of two or three of their experts as whole-time officials temporarily attached to the War Office. Detailed investigations were then undertaken under their supervision by outside firms of accountants, who were either specialists in a particular trade or carried on a general practice in the district where the business was situated. Thus local firms of chartered or incorporated accountants in Dundee, Bradford, Belfast, Dublin, and elsewhere were employed in connexion with the control of the textile and leather trades.

At the Ministry of Food Lord Rhondda established in July 1917 a Costings Department under the control of the Financial Secretary, Sir Harry Peat, K.B.E., a partner in the firm of Sir W. B. Peat & Co. This Department was staffed by a small number of trained accountants; but the vast range of trades dealt with rendered it impossible to carry on all the necessary inquiries without outside assistance. It was therefore decided to make use of the services and organization of the accountancy profession throughout the country. Prominent firms of chartered accountants were selected in each important centre of trade and industry on the nomination of the President of the Institute of Chartered Accountants, and were appointed District Supervising Accountants of the Ministry of Food. These firms were employed to investigate the books of any manufacturer or trader whose costs were under examination.

The main principle laid down by Lord Rhondda was that profits should be limited at every stage of production, manufacture and distribution to a fair and proper remuneration for the services rendered. This did not, of course, mean that the books of every firm had to be examined. The usual procedure was for the Ministry to discuss the question with a representative committee of the trade and to agree that certain selected firms should be taken as typical. The Costings Department would then draw up instructions and cost sheets for the guidance of the District Supervising Accountants and request them to investigate the books and records of these particular firms. On the basis of the reports received from the District Accountants the Costings Department would draw up a general report setting out the conclusions to be drawn

from the statistics furnished. This general survey would supply the basis on which the Supply Department would fix a fair margin or maximum price at each stage of production and distribution, which, after further discussion with the representatives of the trade concerned and generally after submitting them with full explanations to the Consumers Council—a body appointed by Lord Rhondda to represent the consumers' interests—would be embodied in a formal Order and receive statutory authority.

An important feature of this machinery was that the detailed investigations were conducted by professional men who were not interested in trade. Many of the executive officials in the Supply Departments were business men who had temporarily severed their connexion with their private business, but were looking forward to resuming it as soon as possible. It was therefore the rule that information obtained under compulsory powers as to the standing and financial position of private firms should be treated by the Costings Department as confidential and not supplied to members of the Supply Departments, many of whom might be competitors in the same trade.

The statutory powers under which compulsory investigation of costs was authorized were conferred by Regulations 7, 15 c and 2 g. Regulation 2 g, which was the most comprehensive and explicit, runs as follows :

(1) The Food Controller may require persons engaged in the production, manufacture, purchase, sale, distribution, transport, storage, or shipment of any article to which the powers of the Food Controller extend, to make returns giving such particulars as to their business as may be specified by or on behalf of the Food Controller and may require the returns to be verified as he may direct.

(2) For the purpose of testing the accuracy of any return made to the Food Controller under this regulation, or of obtaining information in case of a failure to make a return, any officer of the Food Controller authorized in that behalf by the Food Controller may enter any premises belonging to or in the occupation of the person making or who has failed to make the return, or on which he has reason to believe that any articles with respect to which an order under this regulation has been made are kept stored, manufactured, or produced, and may carry out such inspection and examination (including the inspecting and examination of books) as the officer may consider necessary for testing the accuracy of the return or for obtaining any such information.

(3) If any person :

(a) refuses or without lawful excuse neglects to make a return as required by this regulation to the best of his knowledge and belief, or makes or causes to be made a false return ; or

(b) obstructs or impedes an officer of the Food Controller in the exercise of any of his powers under this regulation ; or

(c) refuses to answer or gives a false answer to any question or refuses to produce any books or documents required for obtaining the information to be furnished in pursuance of this regulation ;

that person shall be guilty of a summary offence against these regulations.

A typical example of the instructions issued to District Supervising Accountants is given in Appendix 13, which has already been referred to in the account of Oils and Fats control. A few points of definition, which arise out of this document, require a brief commentary.

So far as possible the regular principles and methods of cost accounting were observed. In particular a strict distinction was made between items chargeable to 'Costs' and items falling properly under the heading 'Allocation of profits'. For example, Income Tax and Excess Profits Duty, interest on capital, loans and debentures, remuneration of directors, management expenses, donations, subscriptions, and advertisements are all items falling under the heading 'Allocation of profits', and were either excluded altogether from statements of cost or referred to separately. All items which an accountant would pass in an audit as capital expenditure, such as expenses of raising capital, commission on issue of debentures, or addition of new plant would be excluded altogether. One reason why manufacturers' and traders' estimates of costs were generally higher than the Ministry's calculations was that they worked on a different interpretation of the term and included items which were allowed for in fixing a reasonable rate of profit, but were not included in costs.

Some charges would be heavier in normal times than under control, especially advertising and certain selling and distributing expenses such as commissions, fees, and expensive packages. These were no longer necessary or at any rate important items under control, and were therefore cut down or disregarded altogether. Two other factors worked in favour of many manufacturers. First, a larger and more uniform turnover, as in the

manufacture of khaki cloth, meant a considerable saving in over-head charges; and secondly, absence of competition and guaranteed sales at fixed prices practically eliminated all risk of bad debts and trading losses, both of which are in normal times a charge against profits. On the other hand, in many cases a substantial decrease in turnover resulted from war conditions and the abolition of inter-trading; and the general rise in prices made a strict application of the pre-war standard of profit unreasonable, especially where it was interpreted not as a percentage but as a fixed figure per unit handled.

Different methods had to be evolved to deal with these varying circumstances. Thus in the case of margarine manufacturers, prices were based on a fair return on capital rather than on pre-war profit, owing to the fact that increased production involving high capital expenditure had to be encouraged. Again, allowances were made in the case of small grocers and other retail traders in order to cover the increased cost of living, which fell on working proprietors equally with the rest of the community. In some cases a sliding scale of remuneration was found possible, which made allowances for variations in turnover. Broadly speaking, however, prices and margins under the costings system had to be fixed rather above what the average costs would have justified, so that the smaller businesses might be kept going. Prices and profits could only have been reduced still further by a radical reorganization of trade and industry, whereby the small business would have been eliminated. But the policy of the Government was to interfere with normal trade organization as little as possible, and under such circumstances the granting of a rather more generous margin of profit to the larger and more efficient businesses was inevitable. This point will emerge more clearly from the discussion of general principles.

General principles

According to economic theory prices tend under normal conditions to approximate to the cost of production of the marginal producer. For if the demand is such that prices rise considerably above the marginal cost of production, fresh capital will be

attracted into the business, the supply will be increased, and competition will force prices down. On the other hand, if the supply at a price which just covers the cost of production of the least efficient factory or plant is in excess of the demand at that price, competition will reduce the price below the cost of production of the least efficient unit, which will then be forced out of business. Equilibrium is reached when the price which the marginal consumer is willing to pay corresponds with the price which will just pay the marginal producer to keep his factory working. In practice the theory rarely works out as simply as this; economic laws are only economic tendencies and generally have to be qualified by the phrase 'in the long run'. In normal times, however, and under conditions of free competition, prices do tend to approximate to the cost of production of the least efficient or least fortunately placed unit of production. Cost of production in this sense includes a minimum return on the capital employed or a living wage for the individual entrepreneur—items which, it should be noted, are excluded from the strict definition of costs by cost accountants. When prices are much above this level, conditions are abnormal; producers are able to squeeze consumers and profiteering takes place.

During the war conditions were such as to put producers and traders in a peculiarly favourable position. The demands of the Government, often on an unprecedented scale, were added to the demands of the civilian trade; and though in a very long run the supply might have been stimulated to such an extent as to bring about a new equilibrium, for the time being and with a short war in prospect, such an increase was impossible. Fresh capital and fresh factories (except where they were expressly provided for war purposes by Government intervention) were not likely to spring up quickly enough to overtake the ever-growing demand. Competition between producers was for the time being in abeyance, and the least efficient marginal producer found himself no longer on the bare subsistence level but in a position where he was able to obtain a large economic rent. This phenomenon was most apparent where the supply was relatively inelastic, or in the phraseology of war controls, where there existed a 'bottle-neck' which limited the flow of supply and could not be rapidly expanded; wool-

combing, jute spinning, and maritime transport are examples of such bottle-necks.

To have allowed full advantage to be taken of these abnormal conditions would have had two disastrous results. In the first place, it would have involved far greater inflation ; this, as painful experience has shown us, is the worst form of indirect taxation, falling most heavily on the poor and involving a huge transference of wealth from creditors to debtors and from the small man with savings invested in fixed-interest-bearing securities to the shareholder and the wealthy entrepreneur. In the second place, the free play of supply and demand under a régime of competitive prices would have seriously hampered, if not indeed paralysed, the prosecution of the war. Without control of imports and distribution at the most critical stages of the war, Great Britain might well have been forced to surrender owing to a shortage either of food or of munitions. Some limitation of profiteering and freedom of contract was therefore essential from motives of sheer self-preservation.

Owing to the misleading implications of the term ' Costings system ', there is a popular impression that all that was necessary to stop profiteering was to ascertain costs and fix prices accordingly. The story outlined in this book shows that the mere fixing of prices by statutory order was quite insufficient in itself. The economic system could not be transformed by a stroke of the pen. Before costing and price-fixing could usefully be applied, elaborate preparation of the ground was necessary and various novel expedients in centralization and co-ordination had to be put into force. The problem differed according to circumstances.

There is first the distinction pointed out in an earlier chapter between the application of costings and fixed prices to commodities required by the Government and to articles required for civilian consumption. For the former, wholesale and retail distribution of the finished products presented no difficulty ; distribution took place through the Army Service Corps and the Army Ordnance Depots. Goods for civilian consumption, however, had to be made to flow smoothly and regularly through wholesalers' and dealers' stores into a hundred thousand retail shops. The major problem therefore was to regulate supplies and distribution. With fixed

prices, supply and distribution could not be left to take care of themselves; for without the automatic regulator of price fluctuations goods would stagnate near the source of production, or flow unevenly as chance or favouritism might determine.

Again, the problem varied according to the class of trader dealt with. Costing might be applied to determine either a fair margin or a commission for services rendered. Thus an importer of food or raw material, under Government control, generally became an agent employed on commission. The prime cost of the material purchased, including freight and insurance, fell on the Government; but the commission, which was usually expressed as a fixed sum per ton handled, had to be fixed according to the expenses of the agent firm and the amount of work done. If the importer had a branch in a foreign country and bought on Government account from the foreign producer, as in wheat, hemp, flax, and a number of other commodities, the commission had to be calculated after an examination of the establishment charges and working expenses of the foreign branch and of the head office in London. A wholesaler might have nothing more than an office to keep up and certain clerical expenses, or he might have a warehouse in which he would sort, pack, store, blend, or otherwise treat the commodities entrusted to him. In such cases costings would be applied to determine the average cost per ton of the commodity handled, which these services represented. Retail traders were in a category by themselves. Here the expenses were mainly represented by the upkeep of the shop and the salaries of employees, but the margin had also to provide for a fair return on capital or remuneration for the shopkeeper. These depended largely on the amount and rate of the turnover, and great difficulty was experienced in apportioning a fair margin for different commodities dealt in by the same shop and for many different shops varying in size and turnover.

In the case of manufacturers the costings system might either be used to determine a fair charge for performing a definite service, such as sewing bags, combing tops, or treating in any other way an article which remained the property of the Government; or more frequently, the object would be to determine a fair margin or 'conversion cost', which, when added to the price

paid for the raw material or semi-manufactured article, would represent the selling price which the manufacturer was entitled to receive. This, combined with organized supply of the raw material at fixed prices, was the device applied to jute and linen goods, wool textiles, boots, oils and fats, and other materials. The system is treated more fully in Chapter XXVII. Lastly, there was the application of costings to farm produce, which was the most difficult of all. The preparation and analysis of agricultural costs need not merely skilled accountancy but a high degree of organization on the farm, and farms in this country which can boast of either are rare. Agricultural costing and price fixing will be considered in the next chapter.

The costings system, therefore, was no simple, cut and dried, solution; nor was it an exact science. The extent and success of its application varied enormously. Accurate costs were not always obtainable, and where they were obtained they could seldom be generalized or taken as an infallible guide, especially in agriculture. The merit of the system was that it upheld a principle and pointed to an ideal standard. The fact that the standard could rarely be strictly applied did not render it useless; for a rough measure is better than none at all.

An objection to the costings system which gained currency after the war is that it allowed the most efficient or the most favourably placed firm to obtain excessive profits. Since maximum prices were so determined as to give the least efficient firm enough to cover cost and a fair profit, the better organized units naturally obtained a larger profit. Maximum prices, it is argued, must always be extravagantly high for the majority of firms, just because they must be fair for the minority. It is then sometimes implied or assumed that without maximum prices this state of affairs would have disappeared and that the best firms would no longer have been able to earn a big premium over their smaller rivals.

This criticism is worth examining. It is of course true that a system of control suspends competition, and that if general conditions, apart from the existence of control, were such as to stimulate an immediate increase in supply leading to competition between producers and merchants, the application of the costing

principle would tend to prevent prices falling to the extent which they would otherwise do. This is a very different proposition, however, from the implication sometimes made that control necessarily yielded higher profits to the best firms than the free play of market forces.

The difference between the profits of the efficient and the inefficient unit of production is a familiar fact to which economic theory gives the name of differential rent. In normal times prices correspond not with the cost of production of the most efficient firm, but with that of the least efficient. Since prices in the open market tend to equalize themselves (subject only to slight differences due to expenses of transport), the best firm selling at the highest price obtainable, which is that which the least efficient firm will just find it worth his while to accept, is bound to make a bigger profit. The position is therefore much the same under control and under normal conditions. In both cases a higher profit may be earned by the most efficient and favourably placed unit of production. What control did was to stabilize this state of affairs, and suspend the process by which in many trades the inefficient unit is continually being depressed below the level at which it pays to carry on. But during the war and for a year or so after, this process was suspended not so much by control, as by the exceptional conditions which governed the relations of supply and demand.

This leads to a second qualification. But for control the profits of the most efficient firms during the war would have been greater and not smaller. Control effected a general scaling down of profits. It still allowed the best firms to reap the advantage of a differential rent, but it prevented the whole trade from reaping monopoly profits, which in the absence of competition and the excess of effective demand over supply would otherwise have been inevitable.

Lastly, it is worth noting that control of prices by reference to cost and fair profit need not necessarily be based on the cost of production of the least efficient unit of production. Indeed, it is truer to say that the investigation of costs was designed to bring out the average rather than the highest cost. It was the average cost of the normally equipped firm that was generally taken as

the datum line in negotiations between the Government and the trade of industry concerned. But since the relative efficiency of different firms resembles rather a few peaks standing out of a level plain than a large number of peaks and valleys, the average so reached no doubt approximated in point of fact nearer to the general dead level than to the few outstanding exceptions. Cases of very low efficiency could sometimes be ignored or treated separately by a system of special allowances.

Nothing illustrates the extraordinary extent to which competition is in fact limited in operation throughout trade and industry than the striking divergence between the costs of production of different firms engaged in the same processes. According to economic theory the competition of producers should be constantly tending to drive the inefficient out of production. To the extent to which this tendency does not operate, the economists say that friction exists. But friction of one kind or another would almost seem to be a more important feature of the economic system than free competition. Some day the economists will have to analyse the laws of friction to supplement the laws of supply and demand, and construct an economics in which combination, inertia, and vested interests provide the rule, and competition and individual enterprise the exception. In many trades and industries, even with the qualification 'in the long run' added, such a topsy-turvy theory of political economy might give a truer picture.

Striking illustrations of the extent to which differential rent due to inertia or friction or lack of enterprise abounds, are to be found in many of the trades and industries which were 'costed' during the war. Thus, for example, in the baking trade the cost of converting a sack of flour into bread was found to vary during the war from 8s. a sack in an up-to-date steam bakery to 25s. a sack and over in the inefficient bakeries. In the spinning of worsted yarn, where the method of production is more homogeneous and uniform than in steam-baking and hand-baking, the same price of yarn was found to give 2d. a lb. profit to one firm and 9d. a lb. profit to another firm. That these big differences should be possible after economic tendencies have been at work for many years suggests a puzzling question. Why is it that when there is no combination to keep up prices and competition might be expected

to drive out the inefficient and reduce costs to a fairly even level, there should exist such big differences in the cost of similar processes? In the case of coal-mining and farming, convenience of working and the nature of the soil supply a large part of the answer. But in processes which merely demand up-to-date plant, enterprise and good management to produce the conditions favourable to low cost, the answer must explain why there is such a large amount of old-fashioned and uneconomical plant, such lack of enterprise, and such unscientific management. The inquiry might perhaps lead to a reconsideration of some of the fundamental assumptions of political economy, which are still too much influenced by the crude psychology of the early nineteenth century.

One explanation, perhaps, of the survival of the unfit is that they protect the strong from the charge of exploitation. In the milk trade it was ascertained during the war that a large and efficient firm could handle and distribute milk so much more economically than the ordinary small retailer that it could afford to sell milk at 2*d.* per gallon cheaper, if it chose to compete. But if it did, it would crush the small firm out of existence. Such a step might well be avoided not only on compassionate grounds, but because of the popular indignation which would almost certainly be aroused by methods judged more appropriate to an American Trust than to the 'live-and-let-live' principles of British trade. The survival of the unfit meant in this case a differential rent of hundreds of thousands of pounds per annum, which if all the unfit had been eliminated would have become undisguised monopoly profits.

It has been said that there was no reason why the costings system should necessarily have been based on the cost of the least efficient firm. Reflection on the principles involved was bound to suggest the possibility of so reorganizing the trade or the industry as to avoid this necessity. Two main methods were indicated: the first is that known as 'pooling', the second is unification. These methods, as discussions on the future of the coal-mines have taught everybody, are very different. Pooling means making use of each unit of production as it stands and averaging out the costs and profits by payments into and out of

a central pool. The least efficient firm is thus subsidized by the more efficient ; the differential rent earned by the more fortunate and better organized is used to give bounties to the less fortunate and worse organized. Unification, by whatever method it is brought about, means closing down the inefficient and uneconomical and concentrating production in the well-equipped plant or factory. Pooling involves no change in the management, turnover, or ownership of each firm ; unification is generally supposed to involve change of ownership. In coal-mining, for example, unification would take place most simply by creating a single Trust or Statutory Authority. But in distributing trades the actual identity of each firm need not be lost ; under control, schemes of unification were brought about which disappeared with decontrol, when each firm resumed its former independence. The most striking illustration of unification in the distributing trades is the Smithfield Control Board.

The possibilities and difficulties of pooling and unification as applied to manufacturing concerns will be discussed in a later chapter. It is sufficient here to recall the discussions in Chapter XVII on the abortive proposal to form an effective Oilseed Crushers Association. The earliest plan, it will be remembered, was in the nature of a pooling arrangement. The crushers' margin was to be based on a high standard of efficiency sufficient to allow a reasonable profit to the well-equipped mill. Any firm falling below this standard and unable to make ends meet at the fixed prices was to have a right to appeal for special consideration. The next plan was called the Profit Equalization Scheme. This differed from the sort of pooling which involves paying subsidies to keep the inefficient working, since it expressly provided for concentration of production at the most economical mills and the temporary closing of the less economical. It approximated more to the principle of unification, but involved no change of ownership. Lastly, there was the plan which was discussed but never bore fruit of bringing about a compulsory unification of the whole industry whereby the inefficient mills would have been bought up and closed down.

In the marketing of agricultural produce the chief cause of differential rent is proximity to the market. In normal times

this means that the cost of transport over long distances is borne by the producer, or by the land-owner, who has to take a lower rent for his land. Under control, as exemplified in meat and wool, cost of transport was pooled, and farmers received the same price for their produce all over Great Britain. This new departure, though it involved a complete change from normal conditions, was never questioned by agricultural representatives on the ground of injustice. In the case of milk, potatoes, and certain other commodities, where expenses of transport were not pooled, differential prices were fixed to meet variations in local conditions, among which certain items in the cost of production, such as the fertility of the soil or the system of farming, played an important part. The costings system in such cases did not involve a uniform fixed price based on the highest cost of the least efficient unit, but was elastic enough to permit differences.

These three applications of the costings system, to agriculture, to manufacture, and to wholesale distribution, will be discussed in the following chapters.

CHAPTER XXVI

CONTROL OF AGRICULTURAL PRODUCE

Contrast between Germany and Britain — Difficulty of controlling domestic produce — The balance of prices — Contrast with control of manufacture — Application of costings to agriculture — A new science — Differential or uniform prices — Maximum and minimum prices — Methods of subsidizing — Effects of price control — Advantages of guaranteed price.

Methods of marketing — Little combination or co-operation before the war — Centralization necessary for control — Comparison of methods — Relations between Government and farmers — Advisory Committees — Agricultural Council — Parliament.

Valuation and grading — Fixed prices and different qualities — Gresham's law applied to commodities — Improved methods of standardization — Grading of milk.

ONE of the contrasts between State control in Great Britain and Germany was that whereas in Germany most raw materials and nearly all foodstuffs were produced at home and imported supplies were negligible, in Great Britain the greater part of the principal raw materials, except coal and iron ore, and four-fifths of the foodstuffs required were imported from abroad. Though this fact made Great Britain's staying power more precarious owing to the submarine peril, it made the problem of controlling supply, price, and distribution much easier. In judging the comparative efficiency of the two systems of food control, this advantage which the British Food Controller enjoyed must not be overlooked. The control of domestic agricultural produce proved much the most difficult part of Lord Rhondda's task. Certain schemes, such as the various attempts to establish control of pigs, were admitted to be failures; others, such as the control of eggs and home-produced butter, only partially succeeded; and in the case of many commodities from poultry to fresh vegetables (excluding potatoes) no thorough scheme for controlling supply and distribution was ever attempted. In other commodities, which were successfully controlled, such as wool and meat, the organization established was of a more elaborate character than even Germany produced. Judging from German accounts it

appears that control of live stock was actually more thorough and efficient in Great Britain than in Germany.

The two chief difficulties encountered in controlling agricultural produce were, first, the question of price, and secondly, the machinery of marketing. These will be dealt with as far as possible separately.

Price-fixing

In dealing with agricultural produce the question of price was fundamental. With merchants and manufacturers price-fixing resolved itself into a question of determining a fair margin for the performance of certain services. Merchants and manufacturers had to make the best terms they could and then carry on ; it was practically impossible for them suddenly to give up their usual line of business, when it had become less profitable than some uncontrolled occupation. Their experience and plant were highly specialized. Their services could in the last resort be requisitioned, and they could then be instructed in detail what functions they should perform. Moreover, in most trades and industries the number of merchants and manufacturers was a manageable quantity ; each was subject to some degree of individual supervision. Farmers were in a quite different category. As the German war-proverb has it, ' You cannot have a policeman for every cow.' Not only was the number of farmers too great for effective supervision (though the County Agricultural Committees of the Food Production Department did something to bring home individual responsibility in cases of bad cultivation) ; but the variety of agricultural products, some of which are complementary, others alternative, rendered any price-fixing policy extremely complicated. A farmer who finds it does not pay him to produce milk will slaughter his dairy herds ; or if he finds pig-breeding profitable, he will keep his barley and milk and feed them to his pigs. The price of bacon has a close relation to the price of barley ; supplies of butter and cheese vary inversely with the price of milk. Agricultural production is thus extremely sensitive to price-fixing. Too low a price may drive the commodity off the market and divert production into other channels. The time-element, too, is important. The prospect of a fall in prices in

the near future will cause an immediate glut, as occurred with cattle and sheep in the autumn of 1917 ; and the announcement of a future rise may lead to an instant scarcity. Unlike the output of a factory, farm produce comes to market irregularly ; the exact date when a beast is sent for slaughter depends on the weather, on the farmer's convenience or caprice, or on the price of feeding-stuffs. Fat cattle are not ' finished ' for sale like pieces of cloth. There are physiological and psychological factors governing the production of milk and butter, which do not arise in the manufacture of margarine or the brewing of beer. Milk and butter depend on the health of the cow and the psychology of the farmer ; beer and margarine on the efficiency of machines. Food control did not affect the machines ; but it might seriously upset both the farmer and his cow.

During the war the farmer was placed in the same position as producers of other essential commodities ; he was able to take advantage of the market to make profits on a larger scale than usual. Popularly this was called ' profiteering ' ; but the word suggests a deliberate intention and a power of manipulating prices, which the farmer perhaps least of any one possessed. The farmer can no more avoid making excessive profits when buyers outbid one another for his produce, than he can avoid making heavy losses when the market turns against him. But the fact of high profits remained and was aggravated in the farmer's case by the fact that he was not subject to Excess Profits Duty. It was inevitable, therefore, that an attempt should be made to limit his profits by the application of the ' costings system '.

Here, however, practically insuperable obstacles were encountered. In the first place, a small minority only of British farmers keep proper accounts ; compared with peasants in Continental countries the proportion may be favourable, but compared with manufacturers the farmer's accounting methods are notoriously deficient. There were thus few data available. The study of agricultural costings is a comparatively recent science. A few scientific farmers throughout the country had for two or three years before the war sent detailed cost sheets to the School of Rural Economy at Oxford, which had done much to stimulate the collection and comparative study of such statistics.

But apart from this and other similar work on a limited scale, no figures as to costs could be obtained which were anything better than guess-work or *ex parte* statements. In the second place, the analysis of farming costs presents great technical difficulty. So many of the items in the cost sheet are materials both produced and consumed on the farm that it is almost impossible to assign a correct value to them. To apportion the cost between a number of associated products, or between a main product and its by-products, is bound to be more or less arbitrary. The cost of producing wool cannot be disentangled from the cost of producing mutton. The most that can be hoped for is the cost of producing sheep. But this will depend whether the calculator takes turnips, for example, at their cost price in the market, or at their estimated cost of production on the farm. Again, in estimating the cost of production of a bullock, credit must be taken for the manure produced. But to estimate the value of manure at the market price at which it occasionally changes hands would give it a fictitious importance. Is the rental value of the pasture on which dairy cows are fed an element in cost? Or is the rental value of the farm chargeable, not to costs, but to profits? These and other conundrums render any exact calculation of agricultural costings a matter of higher mathematics rather than of practical politics. In price-fixing negotiations, therefore, the costings principle was used not to arrive at a mathematically accurate figure, but as a guide to determine the proportionate increase over pre-war prices, which appeared to be justified by increases in specified items, such as wages, fertilizers, or feeding-stuffs. All that was necessary was to get a rough idea of the proportion which these elements bore to the total cost of production. For example, wages were a less important influence in the cost of producing sheep than in the cost of producing wheat. The cost of production of milk depended largely on the extent to which artificial feeding-stuffs had to be used to supplement pasture. In this case the greatest variety existed on different farms and in different districts; so much so that differential prices had to be fixed, based on local variations in the estimated cost of production.

In spite of these difficulties the application of cost accounting to agriculture received a great stimulus from the war. Towards

the end of the war an Agricultural Costings Committee was appointed under the joint auspices of the Ministry of Food and the Board of Agriculture, the objects of which were to advise the Food Controller on current agricultural price policy and to give official support and encouragement to the development of a new branch of agricultural research which would be of permanent value to farmers. The commodities whose costs of production were studied with most care and profit during the war were wheat and milk. In both cases the vital importance of securing the maximum production made it essential, first, that the prices fixed amply covered the cost of production, and secondly, that sufficient inducement was left by way of profit to make sure that farmers would not give up producing them for the sake of some more remunerative line. This end was achieved partly by allowing a generous margin over and above bare cost, and partly by deliberately depressing the prices of rival products. For example, the relatively low prices fixed for cattle and sheep for slaughter and their by-products hides and wool, gave a negative inducement to dairy farming and arable farming. High prices for slaughter cattle would have encouraged the slaughter of dairy herds. Similarly the production of butter was deliberately discouraged by fixing a low and comparatively unremunerative price, in order to secure the maximum supply of fresh milk for infants.

Reference has been made to the fact that differential prices varying with local conditions were fixed for milk. To have fixed the general level of milk prices on the basis of the highest cost of production, which is that of the town dairy where stall-fed cows are kept and fed almost entirely on artificial feeding-stuffs, would have given an unreasonable profit to the vast majority of dairy farmers, especially in the rich pasture lands of the Midlands and the West of England. But the policy of varying local prices was difficult to apply. To draw any hard and fast line between two neighbouring districts and give farmer A on one side of the line a different price from farmer B a mile away on the other side is an arbitrary proceeding which is hard to justify to aggrieved individuals. In the milk business it was rendered easier by the organization of milk distribution. For the most part milk is bought either direct from the farms by local retailers or by large

wholesale and retail traders for consumption in the towns. In the former case retail prices were fixed by the Local Food Committees and where conditions were favourable a differential price could be fixed for all the milk supplied locally to the area. Milk bought by large wholesalers, like the United Dairies Limited, could be bought at different prices in different areas without causing inconvenience, since all their supplies would be pooled and sold at a uniform price in London and elsewhere. In most commodities, however, it was found more convenient and more generally acceptable to fix a uniform price to farmers throughout the country. Thus the prices of wool, cattle, and sheep were fixed at the same figure for the same grade irrespective of the distance of the farm from the centres of population. Cattle and sheep had indeed to be driven to the nearest country market to earn their full price, but no allowance was made for the distance they had to travel by rail to the London market. Agricultural representatives accepted this reversal of normal conditions without question. No complaint was received from farmers near London on the ground that under the fixed-price régime they received no more than the farmers in the north of Scotland; and yet in normal times the carcass of a Scotch heifer sells for the same price at Smithfield as that of a beast from East Anglia, and the more distant farmer has to bear the extra cost of transport. In the case of meat the two conflicting principles of a uniform price to farmers and a uniform price to consumers led to the establishment of a central pool for averaging out intermediate expenses—a solution of the price problem which is referred to in the chapter on distribution.

A further point to note in connexion with agricultural price policy is that the prices fixed were in all the more important cases guaranteed prices. They were neither maximum nor minimum, but both. This is an important distinction. Maximum prices mean that no buyer may legally pay more, but there is nothing to prevent him paying less if the state of the market justifies it. An example of this occurred in the oilseed market in the early days of control, when the maximum prices fixed by the Ministry of Munitions were for a time above the level of prices ruling in the open market. A similar state of affairs prevailed from time to

time in the wholesale fish market ; an exceptionally large catch might depress prices below the statutory maximum. A maximum price which is not effective or only partially effective leaves supply and demand free to adjust themselves, and, so long as these conditions continue, distribution may be left to take care of itself. Maximum prices as such, therefore, do not necessarily upset distribution. A fixed minimum price in the same way may have no effect if the relations of supply and demand are such as to cause market prices to rise above the minimum. This was the case with the Government's guaranteed price of wheat during a few months after the war, when the general level of wheat prices at which the Royal Commission on Wheat Supplies was selling rose above the guaranteed minimum. In such cases the effect of the guaranteed minimum is merely psychological ; if it is announced at the time of sowing, when the future course of prices is uncertain, it gives farmers a sense of security which will stimulate production. But the effect of a statutory minimum price, when supplies are in excess of demand at that price, is wholly to upset the normal processes. You cannot compel a buyer to pay more for an article than he can get for it ; and if buyers and sellers both agree to transactions below the minimum price, no amount of regulations and prosecutions will prevent them. Maximum prices without centralized purchase may dry up supplies ; but minimum prices without centralized purchase will dry up demand. In both cases distribution will be irregular and subject to favouritism and collusion between buyers and seller.

The difficulties of minimum prices are illustrated in the case of potatoes and wheat. In 1917 the guaranteed minimum price of £6 per ton for potatoes produced such a glut that the market value fell much below it. When the slump in wheat prices started in 1921 the Government's guaranteed price to farmers stood higher than the market level. In both cases recourse was had, in the absence of any scheme of centralized purchase and distribution, to the plan of paying each farmer the difference between the market price at which he sold and the Government guaranteed price. This involved administrative difficulties, and was bound to cause dissatisfaction, delays, and disputes. The business of dealing with hundreds of thousands of individual claims for

payment of a bounty may well involve as much administrative work, and certainly more complaints, than the direct method of centralized purchase and resale. Meat prices also were for a time subsidized by the Government, but this involved no payment of bounty to farmers by the method of examining individual claims. The Government merely instructed its agents to pay higher prices to farmers and continue selling at the same prices as before, the difference being met out of the Central Live Stock Fund, which received a temporary overdraft from the Treasury, to be repaid in later months. By centralized purchase and sale the temporary subsidy could be recovered by passing it on to the consumer at a later date through an advance in selling prices. Under the bounty system this method of recovery was impossible, and the whole of the bounty and its incidental costs fell on the tax-payer.

The conclusion may therefore be drawn that a guaranteed price which is both a minimum and a maximum is most simply and economically administered by a system of centralized purchase, distribution, and resale. The exact form of the monopoly is of secondary importance. It might take the form of a purely Governmental organization staffed by salaried officials like the Army Forage Department of the War Office, which controlled the greater part of the hay of the country ; or a nucleus of Government officials employing a whole trade as agents on commission, as in the wool and meat schemes ; or a large combine like the United Dairies Ltd., acting under Government control and supervision ; or a public monopoly specially constituted for the purpose in the form of a limited liability company, like the German War Companies. The essential point was that there should be one buying authority, a uniform schedule of buying prices, a uniform schedule of selling prices, and a single financial pool for averaging out costs and expenses of distribution and setting off profits against losses.

There remains the question of the economic effect of this agricultural price policy. It is sometimes argued that though maximum prices for agricultural produce, if they are not fixed below the cost of production and are applied without discrimination to rival products so that one is not favoured more than

another, may not have any immediately depressing influence on supply, yet in the long run any measure which limits abnormal profits when supplies are short must exercise a depressing influence on production. In *The Political Economy of War* Professor Pigou puts the argument thus : ‘ If the State adopted a general policy of forbidding farmers to charge abnormally high prices when there are bad world harvests, this would check investment in agriculture ; because people expect bad world harvests from time to time and look to high prices then to set against low prices in bumper years. With price regulation limited to a single exceptional occasion, the position is, of course, quite different.’ The argument so stated is doubtless valid, but it overlooks the fact that the policy of controlling agricultural prices, so far as it was adopted during the war, besides being designed to limit abnormal profits, also aimed at stimulating production. The best incentive to the farmer to extend his arable land, to increase his dairy herd, or to grow more potatoes was not the chance of making very large profits combined with an equal chance, if the war came to an end or a glut occurred, of making a big loss ; but the certainty that he would make a reasonable profit whatever the state of the market. This the system of guaranteed prices gave him. It was in the nature of a scheme of compulsory insurance against bad times. The farmer surrendered his chance of making excessive profits as a premium against the risk of making big losses. How far the system of guaranteeing prices for wheat, meat, dairy produce, and other staple agricultural products on a national or even on a world-wide scale would be practicable or beneficial in normal times is a question which falls outside the scope of this book. But the distinction between the depressing influence of a moderate maximum price unaccompanied by any guaranteed minimum, and the stimulating effect of a guaranteed ‘ fair ’ price, which is both a maximum and a minimum, deserves more examination than it has received from economists. The recent movements in Canada, Australia, New Zealand, and the United States for the stabilization of agricultural prices by State action show that, at any rate in times of depression, farmers see some advantages in Government price-fixing as compared with the gamble of free markets.

Marketing of agricultural produce

For many years before the war there was a growing disposition amongst farmers throughout the world to supersede the traditional mechanism of competitive trade in the disposal of farm products. Two different tendencies were at work. On the one hand, there was the growth of the agricultural co-operative movement, which reached its highest development in countries where small-scale farming was the rule, as in Denmark, Ireland, and parts of Russia, and was specially developed among dairy farmers. On the other hand, the local market and the small middlemen were being progressively eliminated by bringing the ultimate consumer into closer contact with the producer. This is illustrated in the Colonial wool trade, where the large sheepbreeder would sometimes sell his wool in Australia direct to a Bradford manufacturer or topmaker, or again would send his wool on consignment to the central market of the world in London, for sale by auction to British, American, French, German, Austrian, and Polish manufacturers. By these means the wasteful and expensive handling of farm produce by a series of middlemen, large and small, was slowly giving place to more direct and economical methods of sale.

In Great Britain, though the same tendencies were at work, the war revealed how far behindhand the marketing of agricultural produce stood compared with Denmark, Australia, or New Zealand. The co-operative movement had never taken root among English farmers, and the marketing arrangements had advanced little since the days when the farmer's market was the parish or country town. The number of dealers and middlemen was excessive; only in milk had the process of consolidation and organization in the wholesale trade made substantial progress.

The first condition of war-time control of agricultural produce was that the whole of this business of collection and distribution should be in the hands of a single large organization. There had to be one plan, and a central organ for seeing that the plan was carried out. To have had a number of different conflicting plans with several different groups acting independently of one another would have been absurd; but to have left the whole situation to be dealt with by thousands of separate firms each acting on

their own initiative, with no knowledge of each other's activities, would have been still more unworkable. In the absence of a free market, centralization was inevitable. Fixed prices could not work without a comprehensive plan of distribution.

The precise form of the organization varied according to the circumstances of each trade. The simplest course in each case was naturally to make use of any large-scale organization already in existence. Thus the large milk combine known as United Dairies Ltd. immensely simplified the control of milk distribution, especially in London. In most agricultural products, however, trusts and combinations do not exist; there is no English meat trust or any effective combination of wool and grain merchants, though spasmodic and temporary 'rings' are common enough. Nor are agricultural products sold to any considerable extent by farmers' co-operative societies. If British farmers had been organized on co-operative lines as completely as Danish and New Zealand farmers, the problem of control would have been more easily solved. English and Scottish farmers' co-operative societies might then have exercised control on behalf of the Government, and instead of a bureaucratic organization imposed on them from above, which farmers naturally found irksome and oppressive, there would have been responsible self-government in the marketing of agricultural products, tempered only by full publicity as to costs and prices. It is significant that the Ministry of Food tried to move in this direction by transforming its own 'Government Slaughter-houses' into farmers' co-operative slaughter-houses administered by farmers on their own behalf. Broadly speaking, however, the agricultural co-operative movement was not strong enough to play a large part in the organization of food control.

A comparison of the different methods of centralization adopted shows that the 'bottle-neck' could be imposed at various stages in the process of distribution from the producer to the consumer. In the case of hay the Army as consumer had its own Army Forage Department for buying at fixed prices direct from the farmers. But the hides required for making Army sole leather were controlled by a trade combination, the Tanners Federation. By agreement with the Government the tanners of

the country, acting collectively, paid fixed prices to butchers for their hides and received fixed prices for their leather. The machinery of marketing went on as before, but there was virtually a single buyer. Statistics of hides purchased were kept by the Army Contracts Department and for many months these were the only reliable statistics showing the rate of slaughter of cattle. If there had existed in the woollen and worsted industries an organization of spinners and topmakers comparable to the Tanners Federation in the leather industry, the necessity for direct State purchase of British wool might have been avoided. As it was the individualism of the manufacturers and the multiplicity of small dealers made it necessary for the Government to step in as the sole buyer and to organize the whole trade on agency terms. In milk the London combine carried on as before but under Government supervision ; the organization already existed ready to hand. In the corn trade the ' bottle-neck ' was created in the milling industry ; under the general control of the Ministry of Food the millers regulated the purchase and distribution of wheat. Meat passes for the most part direct from farmer to retailer, and even in the wholesale trade there are no large combinations. The Government therefore had to intervene as the sole buyer, and either resell direct to the retail butcher, or pass the meat on to Wholesale Meat Supply Associations created by the Government for the purpose of serving as its agents. In other commodities, such as pigs, no effective centralized organization was established, with the result that control of supplies and prices was never successfully enforced. Butter was bought by Government agents, but no attempt was made to centralize purchase of the whole of the domestic production. Cheese was found more susceptible to control because the trade was in the hands of a few large factors, who were appointed Government agents.

The burden of organization thus fell to a large extent on Government Departments in Whitehall. The agricultural and commercial experts, who in Germany would have been directors of national War Companies and in Russia would have constituted the managing board of the Central Union of Co-operative Societies, became in England temporary Government officials, exercising their powers of organization for the same end and by similar

means but in a different and perhaps less favourable atmosphere. Even a farmer becomes a bureaucrat when he is employed by the State, and soon becomes the target for criticism in Parliament and the Press.

During the war the risk of failure owing to the unpopularity of bureaucratic management had to be constantly borne in mind. In dealing with farmers it was specially important. They would submit without protest to the rigging of markets and to the arbitrary price-fixing of 'rings', while the slightest interference by the Government was liable to arouse suspicion and resentment. This psychological difficulty was met to a large extent by giving the elected representatives of the agricultural community every opportunity of criticizing, suggesting, and sharing responsibility on special Advisory Committees, which were set up as an integral part of every scheme. In the Wool Purchase Scheme there were local Advisory Committees in each area, and Central Advisory Committees for England and Wales, for Scotland and for Ireland. There were Live Stock Advisory Committees, Milk Advisory Committees, Feeding-stuffs Committees, Potato Committees and the rest, all dealing with problems of sale and distribution, in which ordinarily the farmer has hardly any voice at all. Not only did this system give the Government a large amount of valuable unpaid assistance and advice, but it also gave agriculturists as a body the feeling that they were co-operating on equal terms and were helping to control not only themselves, but the wholesale distributors and even the executive officials.

At the head of this hierarchy of representative Committees was an important new body called the Agricultural Council, which functioned as a deliberative and virtually as a legislative body on agricultural matters. It was the rule that all Orders made by the Food Controller affecting agriculture should be submitted beforehand to the Agricultural Council for their criticism, approval, or acquiescence. The necessity for and the nature of the measures proposed would be explained to the Council, not by the Minister, but by the executive official responsible for the administration of the scheme. Once approved by the Agricultural Council the Order would be submitted with the same detailed explanation to the Consumers Council, a body composed of co-operators, labour

representatives and householders, and after discussion and approval would at once be issued. Occasionally the two Councils differed, especially on the question of price. On one occasion the question of milk prices was referred to a joint Committee of the two Councils to thrash out between them. This procedure for the time being replaced the ordinary machinery of Parliamentary Government. The Food Controller had been given a free hand by Parliament and was under no obligation to submit his Orders for Parliamentary sanction. But his autocratic rule was tempered by a form of representative government devised by himself to give both expert assistance and popular support.

The relations between Parliament and the Agricultural Council were never defined; and it was not till after the war, when its functions became less important, that Parliament gave the Council statutory recognition. But their relations may be illustrated by an incident which occurred in the spring of 1918. The House of Lords was debating in a critical and somewhat destructive manner the Food Controller's proposals for controlling the wholesale milk trade. The Minister in charge was speaking from a brief supplied to him by the Food Ministry, but not being the Minister of Food he was adopting an apologetic line of defence which failed to satisfy his critics. It happened that at the same time the Agricultural Council was also considering the proposals and discussing them in detail with the Food Ministry's milk experts. While the Minister was still being cross-examined in the House of Lords and finding it difficult to reply convincingly to a number of points which were not in his brief, news came that the Agricultural Council had approved the scheme. As soon as the Minister announced this fact, the debate collapsed and the hostile motion was withdrawn. If a body which had a better claim to represent agricultural interests even than the House of Lords was satisfied with the scheme, there was nothing further to be said by their Lordships.

Grading and quality

The question of valuation has been dealt with in the description of British wool purchase, and the same topic recurs in the account of the grading system under the live stock organization. The importance of standardization and scientific grading of agricultural

products deserves greater space than can be devoted to it here. Some of the developments initiated during the war, such as the official seed-testing station and the grading of milk, in which this country lagged far behind more progressive countries, have been retained and have now received statutory authority. Nor is there space to refer to the importance of a more adequate treatment of quality in the teachings of economic science. It is not merely currency that needs to possess homogeneity and cognizability. It is equally important, if valuation is to have any firm objective basis, that other commodities, especially raw materials and agricultural products, should be scientifically standardized and officially graded. In the absence of proper discrimination of qualities, trade becomes a matter of chance and even of trickery. There is a sort of Gresham's Law applicable to commodities, according to which the quality expressed by the same customary 'mark' constantly tends to deteriorate and become debased.

During the war the practical problem was, how could differences of quality be allowed for under a system of fixed prices? It has been pointed out in a previous chapter that it was easier to administer differential prices for quality at the wholesale stage than at the retail end. During the greater part of control imported frozen meat was sold at the same price as home-killed meat though they differ in quality. This was partly because the meat ration was expressed in terms of money; but it was also to prevent butchers making an illegitimate profit out of customers who could not distinguish between the two. The only satisfactory way of securing that the retailer sold the right quality at the right price was to have the food made up in packets and labelled, like margarine, or sold in bottles with the grade marked on the lids, like milk. This could be done with canned meats, but not with fresh meat or fish or potatoes. In buying from the producer, however, if any recognized system of standardization or grading existed under normal conditions, it could be applied under official control; though where the determination had generally rested with the individual judgement of the buyer, it was more difficult to convince the seller that this was a fair system to continue under control. For instance, live cattle and sheep are normally valued for slaughter according to their estimated yield of dead meat, the estimate being formed

in the buyer's own mind. Under control the estimation of the yield was entrusted to a committee of three graders, who were not always reliable or unanimous in their conclusions. The Ministry of Food later tried to substitute individual experts for the Grading Committees, but the change met with opposition. The more scientific system of determining the value of beasts after slaughter, or of wool after it had been cased, was adopted wherever facilities existed; but there was a large number of farmers who disliked this system, because it meant parting with their property before being paid for it. Confidence in the new system was only gradually established, as the merits of an objective standard in place of individual judgement were realized.

The case of milk illustrates the working of differential prices for quality under control in favourable contrast with the previous state of affairs. Before the war milk, good and bad, was sold indifferently as the same article. Subject only to the provisions of the Foods and Drugs Acts, which laid down a minimum of fat and a maximum of water, the quality of the milk sold might, and did, vary enormously. Here Gresham's Law was seen at work. Indifferent milk and adulterated milk tended to drive out good milk. There was no inducement for farmers to produce the best quality, or for dairymen to handle it with scrupulous cleanliness and honesty, since it commanded the same price as ordinary commercial milk. Under control pure milk was recognized for the first time as a national asset, and a special price was fixed for Grade A milk, certified after official inspection to be of the finest quality, and free from impurities and tubercular infection. In many commodities differences of quality had to be ignored under a system of fixed prices; the best home-killed meat was sold at the same price as frozen meat. In milk, however, the abolition of price competition rendered competition in quality possible. With the introduction of official grading discrimination in price for different qualities became possible, and the buyer was for the first time able to distinguish between the pure and the less pure. Under such conditions Gresham's Law no longer applied, and owing to Government intervention the contamination of Grade A milk became as unprofitable as the debasement of gold sovereigns.

CHAPTER XXVII

CONTROL OF MANUFACTURE

Control of industry as part of wider problem — Gradual growth of unification — Collective agreements, control of raw materials, costings system, rationing of raw materials and standardization of product — Application to civilian trade.

No interference with ownership or management of factories — Restrictions on buying and selling — Similarity to Kartel system — Costing and transfer of products at fixed prices — Similarity to vertical trust — Vertical combination of horizontal associations in oils and fats — International combination — Association not amalgamation of separate firms — Representative governing bodies and advisory committees.

Limitation of profits and price-fixing simpler in manufacture than agriculture — 'Taking possession' of factories and costings system compared — Problem of securing efficiency and economy — Comparison with methods of trust — Inducements to economy retained — Competition in quality — Organized competition and encouragement of initiative in large-scale organizations.

CONTROL of manufacture, rather than control of industry, has been chosen as the title of this chapter, since the problems normally associated with the latter phrase, that is, the relations of labour and capital, the determination of wages, profit-sharing, and joint control, are questions, so to speak, of domestic concern inside the industry. Discussion of them takes for granted those factors which fall rather within the sphere of commerce and finance, such as demand and supply, prices, the nature of the product, and the relations of the industry as a whole to the larger field of national or international economy. This chapter is not concerned with the internal politics of industry, since outside the munitions trades State control did not greatly affect them. The major part of control had reference to markets, prices, raw materials, and the nature and distribution of the finished products; not to labour conditions, the ownership of capital or the technique of management. Control of manufacture is treated in this chapter as part of the general problem of regulating prices and production.

The key-note of industrial mobilization has been shown to be unification. The unity was not indeed that of an industry in the narrow sense of a group of manufacturers, but of an organic whole

comprising importers, dealers, manufacturers, wholesalers, and retailers—all in fact, who were concerned with the production and distribution of a single group of related products. But inside this wider unity there were secondary groupings, among which the manufacturers engaged in the various stages of production played an essential part. In practice unification was only imperfectly realized; the logical lines of organization only emerged at the end of a slow process of evolution and they came by devious and divers paths.

The first stage, which has been traced in the opening chapters of Part I, was the placing of large Government orders in bulk in place of piecemeal individual tenders. This involved, to a greater or less degree, some process of collective bargaining, either with established Associations or with representative committees appointed for the purpose. The next stage opens with centralized purchase of raw materials, either of the whole supply required for military and civilian purposes, as in flax, or of the part needed for Army requirements, as in jute. This led to the establishment of a single office responsible for distributing raw material at fixed prices, placing orders on the conversion cost basis, and apportioning as fairly as possible both the burdens and the privileges of Army contracts.

By this time an important change had taken place in the relative attractions of Government and private orders. In normal times and for the first few months of the war, Army contracts were keenly sought after and were at least as profitable, if not more profitable, than ordinary civilian trade. But when profits on Government orders were cut down by the costings system, and prices in the open market began to yield very high profits, manufacturers found private trade the more profitable of the two, and those who had taken large Army contracts began to urge that the burden of supplying the Government should be shared as fairly as possible by all. The attempts made to satisfy this demand extended the process of unification. The central office began to accumulate detailed information of the output, plant, labour, and technical capacity of each firm; and the representative committees which advised the controlling department began to exercise more responsible duties.

Finally, the need for drastic restrictions on civilian consumption led to the gradual introduction in the field of private trade of the methods which had been successfully applied to Army requirements, namely, standardized qualities, fixed prices, and limitation of profits by the costings system. In the woollen and worsted industry the production of Standard Clothing was combined with an attempt to give priority to the export trade, the whole of the industry thus being organized for the threefold purpose of supplying the Army, paying for imports by sales abroad, and clothing the civilian population. The network of committees and executive departments needed to carry through this degree of centralized planning and control culminated in the Wool Council or Board of Control, which became virtually a representative legislative body for the woollen and worsted industries. In the trades dependent on the import of oilseeds and oils and fats, unification took place on similar lines through the establishment of controlled Associations, which regulated their own affairs under the general supervision of, but without detailed interference by, the controlling department at the Ministry of Food.

Two features in this process of unification may be noted. In the first place there was never any question of interference in the actual ownership or individual management of factories. Each private firm or joint-stock company continued to function as a separate unit. Even where, as in the case of coal-mines or flour-mills, the Government 'took possession' of the mines or mills, the phrase did not imply any change of ownership; it merely meant that the Government took financial responsibility for the results of control and enjoyed the use of the plant for its own ends. Ordinarily even taking possession of factories in this limited sense was unnecessary. Control operated on the commercial side of the business, in the selection and purchase of raw materials, in the specification of the product, and in the price and destination of the finished article. In exceptional cases it might be necessary to require the owner of a factory to perform certain work; but the more usual procedure was to requisition the whole or part of his output, supply him with the materials, specify the nature and quality of the product, and give delivery orders for its disposal. The essential characteristic was that the manu-

facturer was divested of individual responsibility for buying and selling, but retained his individual responsibility for the technical processes of manufacture and the running of his own plant. This sort of unification corresponds to the 'kartel' system with its centralization of buying and selling, rather than to the combine or trust system which involves unification of ownership and management as well as of the processes of buying and selling.

The costings system and the transfer of products at fixed prices suggests a second resemblance. At each stage of manufacture from the raw material to the finished product prices were fixed on the basis of conversion cost, not as in the kartel system on the basis of what the relations of supply and demand will justify, or the policy of the kartel may dictate. An interesting parallel to this system of costing at each stage is found in the internal mechanism of a 'vertical trust', that is, a combination of firms reaching from the raw material, like coal and iron ore, right through to the finished product in the form of tools, hardware, or other retail goods. An engineering combine, for example, may own its own coal-mine and its own steel-works; an electrical combine will have its own glass factory and its own wire factory, and perhaps its own wholesale selling company for passing on electric-light bulbs and other goods to the retailer. The constituent parts of the electric-light bulb may be made in different factories, but the intermediate products will be passed from one factory to another, not on the basis of the price at which the same product would be bought or sold in the open market, but on the basis of the actual cost with a standard allowance for overhead charges and return on the capital invested. If the process is carried one step farther and the combination becomes powerful enough to dictate the prices at which the retailer shall sell the standardized product to the ultimate consumer, the resemblance becomes still more complete, with the important difference that whereas electric-light bulbs, tobacco, and soap will normally be sold at prices which yield the highest profit, margarine, standard clothing, and war-time boots were sold under control at prices which gave less than the highest profit obtainable.

War-time control of industry thus has points of resemblance both to the horizontal kartel and to the vertical trust. The logical

form of organization to which it approximated might be defined as a vertical combination of horizontal associations. This came nearest to being realized under the Oils and Fats Control of the Ministry of Food, where the national synthesis consisted of the following: the Oilseeds Supply Department, supervising the purchase and import of raw material; the United Kingdom Oilseeds Brokers Association, which handled the distribution of seeds and oils; the United Kingdom Oilseed Crushers and Refiners Association, covering the production of crude and refined oils; the Linseed Oil Consumers Association, which distributed linseed oil among its members; the Soap Manufacturers Federation, covering the production of soap and glycerine; the Margarine Manufacturers Association, representing the production of margarine; and the Margarine Clearing-house, which supervised the distribution of margarine to retailers. Towards the end of the war the essential unity of the whole organization, which had hitherto found expression merely in the fact that there was a single Oils and Fats Controller, was formally recognized by the creation of a central Oils and Fats Council representing all the various Committees and Associations and responsible for deliberating upon questions of mutual and general interest, and for advising the national representatives on the Inter-Allied Oilseeds Executive on questions of international importance. For a few months after the Armistice the deliberations of Allied merchants and manufacturers on the Inter-Allied Oilseeds Executive on such questions as the purchase of raw materials, prices, and the distribution of products resembled in embryo the working of an International Consortium for regulating the oils and fats trade of the world. Though such an organization has never existed before or since in these particular trades, it may be paralleled in other commodities such as borax, steel rails, and glass bottles, where international combinations for the regulation of markets and prices were well established before the war.

It is worth emphasizing here that though it is true that Government control was bound to encourage combinations, since without some form of organic unity no common plan and no common purpose could possibly be realized, these combinations rarely took the form of actual amalgamations. Control

would indeed have been simplified if amalgamation had been more widely adopted. Problems of apportioning work, closing down inefficient and inconvenient plant, rationing of raw materials, and distribution of products would have thrown less work on Government Departments if they could have been entrusted to large-scale organizations already functioning as a single financial unit. Questions of compensation and fair play as between rival interests would not have arisen in dealing with a national trust. But the combinations and associations promoted and made use of by the Government were not of this kind. In most of the trades which came under control individualism was still strong, and in a few cases competition was carried almost to the length of a personal vendetta between rival magnates. This explains why the reaction to individualism has been so pronounced in this country. During the war there was a temporary truce, competition was suspended, and business men learnt the advantages and to some extent the technique of organized co-operation. But with the removal of control, at least in the textile trades and in the oils and fats trades, the normal warfare of peace succeeded to the abnormal truce of war.

The comparison between the organization of industry under control and the organization of a huge private trust must not be pressed too far. It is only a few features which are common to both, and the development of large-scale combinations has not yet gone far enough to provide a complete parallel. The present tendency in private amalgamations is towards autocratic direction by a single organizer or a small group of directors. Under control, though the powers which could on paper be exercised by the Government were despotic, in practice the Food Controller was a constitutional monarch who could only govern with the support and approval of the majority in any particular trade. The voluntary co-operation of traders and manufacturers was at least as important as the wide compulsory powers conferred by the Defence of the Realm Act ; but it was rarely found necessary or possible to elaborate so complete a system of constitutional government as that of the oils and fats trades, which has been taken not as a typical but as an exceptional case. It remains true, however, that all the innumerable Boards, Councils, Associa-

tions, and even Advisory Committees which were associated with the work of the controlling Departments, functioned to some extent as representative governing bodies of the trade or industry concerned. Some of these bodies merely bargained and negotiated, others advised on policy, some acted as courts of appeal for disputes between traders or between the Government and individual traders; others took on more definite administrative functions such as the rationing of raw materials or the allocation of orders; but all of them, even the least effective and most ephemeral, shared some of the responsibility for the working of control and contributed to the smoothness or friction with which it was administered. They all illustrate to a greater or less degree that limitation and devolution of power which alone made control possible.

The different categories of representative bodies may be roughly classified as follows:

1. *Manufacturers' Associations.* Associations for some form of mutual protection existed in nearly every industry; the Scottish flax industry has been noted as a rare exception in which no manufacturers' association existed before the war. The Wholesale Clothiers Association, the Belfast Flax Spinners Association, and the Soap Manufacturers Federation are typical examples. These bodies and their executive Committees acted primarily as representative organs for negotiating agreed terms and collecting and distributing information.

2. *Advisory Committees.* These were generally appointed by the controlling department, partly to negotiate agreed terms and partly to give expert advice on policy and trade customs. The early Advisory Committees in the woollen and worsted industries, in the boot and leather industries, and in the oils and fats trades are typical examples. Members were generally appointed on the nomination of trade associations or for their prominent position and influence in the industry.

3. *Controlled Associations.* The Associations established in the oils and fats industries had a special constitution. They included all firms in the industry, and their Memorandum and Articles of Association defined their objects and powers as being concerned with the administration of control, and provided for the general

supervision of the Government in the internal affairs of the Association.

4. *Advisory Councils.* In the oils and fats trade an Advisory Council was appointed consisting of representatives nominated by the various Advisory Committees and Associations to advise on broad questions of policy which were of mutual concern to all parties, including international questions.

5. *Executive Boards and Committees.* The Wool Control Board, the Flax Control Board, the Cotton Control Board, and the Flour Mills Control Committee are examples of representative governing bodies exercising statutory powers delegated to them by the Government.

Limitation of profits and price-fixing

For reasons already given in previous chapters, manufacture was more easily susceptible to the application of the costings system than agricultural production. The constituent items in total cost were more readily analysed and, given a fairly constant price for the raw material, the right price for the finished product could usually be calculated without much difficulty by ascertaining the conversion cost. The difficulty varied, however, in different industries and with different processes. Where a simple process of transformation or manipulation was applied to a single homogeneous raw material, like the sewing of cloth into bags or the manufacture of tents out of canvas, costing was comparatively simple. But where a number of different qualities of raw material in varying quantities had to be blended, as in the spinning of woollen yarn or the manufacture of margarine, exact costing was more difficult. It was then necessary either to assume a certain normal proportion between the constituent elements, or to lay down a standard official specification, as in margarine. This led to control of quality and inspection of the product.

Manufacture differs from agriculture, again, in the specialization of the factory compared with the farm. Different firms tend to specialize in different processes; there are therefore a number of intermediate or semi-manufactured products which change hands in the open market and are the subject of speculative buying and selling by dealers and middlemen. On a farm the same degree

of specialization is impossible ; ' mixed farming ' is the rule even in the most primitive forms of agriculture. Animal manure, for example, which is an essential raw material both for arable farming and grazing stock, is obtained as a by-product on the farm ; it is rarely bought outside except by horticulturists. Again, sheep-breeders and dairy farmers grow their own root-crops and other feeding-stuffs. Artificial feeding-stuffs and fertilizers are important, but they are not so vital to a farmer as yarn is to a weaving factory or oil to a margarine-maker. Control of manufactured products therefore involved control of intermediate products at various stages, and this involved not only the application of costings at a number of separate points in the whole process, but difficult adjustments of price at each stage and some system of rationing to take the place of a free market.

A distinction must be drawn between two different systems of control of manufacture which developed during the war. On the one hand there was the costings system as described in this book and applied by the Army Contracts Department to the textile, leather, and other industries and by the Ministry of Food to the oils and fats industry ; and on the other hand there was the system applied by the Ministry of Food to the flour-mills. The former depended on the power to requisition output at a price based on cost ; the latter on the power conferred by the Defence of the Realm Act to ' take possession ' of factories.

Taking possession of land and houses for military purposes meant that the Government was free to make use of them in any way it pleased for such time as it thought fit. It was not liable for rent in the ordinary sense, but merely paid compensation for damage done and for loss of business, calculated upon the return which the property was bringing before the Government intervened. It did not imply an actual transfer of ownership, but it conferred unrestricted rights of user on the Government. This power, which originally applied to land, houses, and factories and was conferred on the Admiralty and the Army Council, was later extended to whole industries, in particular to the coal-mining industry and the flour-milling industry. In these cases, however, though the Government had the right to use the existing plant in any way it liked and even to install new managers if it so

desired, no great changes actually took place ; the announcement that the flour-mills had passed into the possession of the Government was accompanied by general instructions to the owners to carry on exactly as they had before, and to continue buying and selling in the normal way, subject only to such directions as they might receive from time to time. There was never any detailed interference with the management of individual mills and very little with their usual commercial operations. The Government merely controlled the general level of buying prices and laid down the quality of the flour to be produced and the price at which it should be sold to bakers. No attempt was made to fix the price of flour with reference to cost of production and a fair profit, as under the costings system ; nor was it necessary to limit profits by calculating conversion costs or margins. For the principle on which the profits of flour-mills were limited was based on the pre-war return on the capital invested, not on their estimated pre-war profit per sack of flour produced. In practice, owing to the fact that the Government fixed the selling price of flour below the cost of production in order to give effect to the policy of subsidizing bread, all the flour-mills of the country were carried on at a loss. But since they had passed into the possession of the Government, the owners were entitled to receive fair compensation for the loss sustained through carrying out the instructions of the Government. The method adopted was similar to that applied to the railways and the coal-mines ; every firm was guaranteed its standard pre-war rate of dividend.

This arrangement clearly had many advantages. It greatly simplified the administrative difficulties of fixing prices, since there was no need to consider the effect of changes in the price-level on the profits of manufacturers. It obviated the necessity for examining cost accounts, invoices, and other private documents in order to find out what might be taken as a fair margin or conversion cost. All that was necessary was to fix once and for all each firm's standard dividend based on pre-war profit-and-loss accounts and balance-sheets. Under the costings system, on the other hand, changes in the price of raw material necessitated changes all along the line in the prices of intermediate and finished products ; a rise in the price of raw material gave the holder of

stocks an unearned increment, and a fall led to claims for compensation. Both these difficulties could, indeed, be surmounted, as for instance in the oils and fats industry, where manufacturers were required to pay the difference between the old and the new value of their stocks when the maximum prices of raw material were advanced. But it was more convenient to be able to alter buying prices and selling prices at any time without reference to the value of the stocks held as the private property of manufacturers.

There is one serious objection, however, to this system of control which explains why it was not more generally adopted. It leaves no financial inducement to the manufacturer to be economical and efficient. He can be as wasteful and inefficient as he likes, postpone improvements, pay extravagantly high salaries, and let the interior organization and management of the factory deteriorate, and he will still be entitled to draw his guaranteed rate of dividend. Or again, he can speed up production and improve the quality and efficiency of his manufacturing processes without deriving any financial benefit from the economies and improvements he has effected. In either case the loss or the gain will be for the account of the Government, but it will be scarcely noticed in the vast scale of the national accounts. In a well-organized industry like flour-milling, this psychological reaction may have been off-set by other considerations such as pride in the firm's good name, the desire to build up goodwill for the period after the war, and the professional and public-spirited habit of mind which regards efficiency and economy as ends worth aiming at for themselves without the added stimulus of profit. But the manner in which this experiment worked falls outside the scope of the present inquiry. The purpose of the comparison is merely to draw attention to the principle involved, and to the contrast which marks it off from the costings system. The problem of stimulating efficiency and economy under control will here be examined only in the light of the experience gained under the costings system.

This problem, it should be noted, arises equally in the administration of trusts and amalgamations, and indeed of all large-scale organizations. Every large-scale organizer is familiar with the

cramping and deadening effects of organization. Individual enterprise and initiative are conditions of efficiency and progress, but it is just these that are stifled by a machine-made organization which substitutes rules for individual judgement and red tape for common sense. The solution of the problem sounds a paradox but it is in reality a commonplace. The success of a trust or large organization depends on the extent to which it encourages competition and individual enterprise.

A good illustration of this is afforded by the methods adopted by the London milk combine. When a small retailer is bought out, it may be because he is inefficient and unenterprising ; or it may be because, though he is naturally keen and energetic, he has become hopeless and slack for lack of sufficient scope and resources. On being taken over, he will usually be appointed manager of the local milk depot into which his shop is transformed. He is then encouraged to organize the business under his charge on up-to-date lines, and probably for the first time is brought into direct and continuous competition with his fellows. By a system of careful records and cost accounts his methods and his achievements will be compared at regular intervals with those of his rivals managing similar depots elsewhere ; and the stimulus supplied by the spirit of emulation in this contest may prove a stronger inducement to enterprise, economy, and efficiency than the hopeless struggle to avoid bankruptcy and make both ends meet, which had previously been his lot. This is an extreme case, but it illustrates the fact that the competitive spirit does not necessarily flourish most in what is called the competitive system. Men do not always work best on their own ; the closer the association the stronger grows the spirit of emulation. This, combined with a large measure of administrative decentralization and the encouragement of individual responsibility, is the manner in which successful trusts endeavour to eradicate the evils of red tape and mechanical uniformity.

Under control there was little danger of organization being carried to such an extent as to affect the freedom and individual judgement of the factory manager. Just as you cannot have a policeman for every cow, so you cannot have an inspector for every factory. There was thus plenty of scope for economy and

efficiency in factory management ; the question was to provide a sufficient inducement. The inducement that was found was of two kinds.

In the first place the costings system was so devised that it still paid the manufacturer to strive for economy and efficiency. In the oils and fats industry the practice was to fix the selling prices and margins once every three months ; in the woollen and worsted industries prices would be fixed every few months when large contracts were being given out. The manufacturer therefore knew the price he was going to receive for some time ahead. He had no anxiety about buying the raw material, since he was guaranteed a sufficient supply at a fixed price by the controlling department. He was therefore free to concentrate his attention on bringing down his costs below the level which had been taken as the datum line in calculating the fixed price. Any saving he could make in this direction was a clear addition to his profit. But at the end of the three months or when fresh orders were being placed, his costs might be re-examined, and if it was then found that he was producing more cheaply than had formerly appeared possible, the margin and the fixed price might be reduced for the subsequent period. One source of economy, for example, which sometimes led to a review of estimated costs in the textile industries was the saving in overhead charges produced by very large Government orders for the same quality of yarn or cloth, which meant that output went on steadily without the interruptions and constant readjustments of machinery which were necessary to deal with small private orders. But for the fact that wages, fuel, and miscellaneous materials were constantly rising, the operation of the costings system might have resulted in a gradual reduction of cost owing to a progressive improvement in technical efficiency. Again, since margins had to be calculated so as to cover at least the average if not the highest cost, any firm which increased its efficiency could rely on reaping the full benefit of its superiority over its rivals. The costings system therefore left a considerable financial inducement to economy.

It is, indeed, arguable that this method of restricting profits was more favourable to efficiency than unrestricted profiteering would have been. It is a familiar observation that a farmer who

is inclined to take things easy when he is prosperous, works harder when the landowner raises his rent. The same economic law applies to a certain class of manufacturer. Before the war many old family firms which had for years been yielding handsome dividends to the proprietors were being conducted on old-fashioned and inefficient lines. The wealthy descendants of the original entrepreneur found it too easy to make profits to bother about reducing costs. On the other hand new and over-capitalized joint-stock companies had to be keyed up to a higher pitch of efficiency, in order to earn dividends on their watered stock.

In contrast to the costings system there are other ways of restricting profits which give no inducement to economy and rather encourage extravagance. One is what is known as the time-and-line system, sometimes referred to as the cost-and-profit system. Under this the Government pays the actual cost, whatever it may prove to be on completion of the job, and an agreed profit expressed either as a fixed amount or as a percentage on cost, in which case the greater the cost the greater is the profit. This system is generally confined to intricate constructional work, where it is quite impossible to estimate the cost beforehand. Another uneconomical method of restricting profits is Excess Profits taxation. After the standard profit has been earned, any extravagance or inefficiency in the manufacturing processes merely diminishes the amount taken by the Government in taxation without affecting the manufacturer.

The second kind of inducement which operated under control has been described in the chapters on Oils and Fats Control. It consisted in the encouragement of competition in quality. The system was simple. Makers of the same class of commodity submitted samples of their products at regular intervals to an impartial and expert analyst, who awarded marks to all the samples submitted in order of excellence. Impartiality was easily arranged, since the samples could be submitted to the analyst bearing merely a number instead of the maker's name. A periodical list of the marks earned by each firm was then circulated throughout the industry. The psychological effect of this organized competition was remarkable. During control the best maker merely won prestige and honour. But if a similar system

could be introduced in normal times and the reports of the Government analyst or other impartial expert could be published in the Press, high marks would be a valuable free advertisement ; they would increase the demand for the firm's products and thus prove a financial asset as well as a source of pride. To some extent the principle is embodied in the scheme mentioned in the last chapter, whereby the finest milk can now be certified by a Government inspector and sold as 'Certified' milk.

Before leaving the subject of efficiency in large-scale organizations one other instance of organized competition may be noted. In the National Factories established by the Ministry of Munitions instructions were given for careful cost accounts to be kept according to a prescribed plan. By this means it was possible to ascertain with great exactness the cost of producing, say, trinitrotoluene, and to compare costs in the different factories item by item. Periodically all the works managers would be invited to London and would be shown statistics and diagrams illustrating the variations of cost. The cheapest possible cost would probably be a composite table consisting of items drawn from several factories ; no factory was likely to be top in all the items at the same time. Discussions, questions, and explanations would then follow. The inefficient would feel humiliated or at least uncomfortable, and all would return with new ideas of efficiency and economy and a determination to make a better showing, if possible, next time.

It is questionable whether the competitive system provides scope for such direct and fruitful competition as this pitting of experts one against another in their own field. Costs and processes are kept too secret, and no direct comparison is possible between the costs and efficiency of rival firms. The test of the balance-sheet and the profit-and-loss account is not conclusive ; a loss may be due to bad debts or to bad luck, as well as to inefficient management ; and big profits may be due to good judgement or successful advertisement quite as much as to economy in production and a high standard of technical efficiency. Organized competition pits like with like, and measures their comparative efficiency with precision ; the free play of the competitive system confers its rewards and punishments indiscriminately. A lucky

gamble is prized as much as superlative merit ; and business instinct may cover a multitude of technical deficiencies.

Organized competition and the encouragement of initiative and enterprise are essential to the success of large-scale organization. This truth has been recognized by successful trusts, and it was to some extent recognized, as the experiments related in this book show, during the rough-and-ready national organization of industry during the war. Emphasis has been laid upon it because, though it was not a prominent characteristic of control in general, it was probably the most valuable feature in those controls where an attempt was made to introduce it.

CHAPTER XXVIII

TRADERS AS GOVERNMENT AGENTS

Functions of merchants and middlemen — Different relationships between Government and traders — Individual agency agreements — Collective agreements — Controlled monopolies — Semi-official trade organizations — Direct distribution by Government — Employment of all or selection — Customary trade channels maintained or abolished — Trade practices modified — Remuneration by flat-rate, sliding scale, percentage, fixed maximum, lump sum — Financing by traders or by Government — Guarantees any loss — Control simplified by delegation of responsibility — Summary and classification of agency arrangements.

WITH import centralized in the hands of the Government, agricultural produce requisitioned at fixed prices, and manufacturers' output requisitioned at prices based on conversion costs, the ordinary business of buying and selling in free markets came to an end. Wholesale traders, brokers, factors, salesmen, commission agents, and middlemen found their usual occupations threatened with extinction. But at the same time the Government, having undertaken the stupendous task of regulating the flow of commodities at fixed prices, needed machinery for doing it. Merchants and middlemen, therefore, were almost as essential as before, but they now acted not as independent principals buying what and where they liked, but as Government agents forming links in a single chain of organized distribution.

Before considering the methods and principles by which organized distribution took place, it will be useful to summarize and compare the different relationships established between traders and the Government in different trades. It has been pointed out in Chapter XXIV that the methods adopted for organizing import on Government account represented a number of compromises between official routine and business methods. The same is true of the regulation of supply and distribution at home. The exact division of work between the controlling Department and the agent firms followed no uniform plan. The tendency, as we have seen, was for more responsibility to be devolved on the traders themselves, as control was gradually extended and

as the idea of co-operation between private trade and the Government began to replace the necessity of compulsion. The contrast, however, is seen at an early stage. British wool was purchased by the Government, while British hides were controlled by the United Tanners Federation. In each case prices were fixed and the usual buyers continued to function. But in the first case centralization was effected by State organization, in the second by a trade association under Government supervision. Where no trade organization existed capable of regulating prices and distribution, the Government might either make individual agency agreements or negotiate a collective-agency agreement with a trade organization created for the purpose. Examples of the former are found in British wool purchase, and in the distribution of butter, sugar, tea, bacon, and other foodstuffs. Collective agency agreements were made with the London Wool Brokers Committee, with Wholesale Meat Supply Associations, and with the United Kingdom Oilseed Brokers Association. Where there existed a virtual monopoly, as in tobacco, petrol, and the London milk trade, no new machinery was necessary. The monopoly continued to function, subject to control on matters of principle and general policy. In other cases the trade organization set up would function as a semi-autonomous public institution like the Butter and Cheese Imports Committee, or the Smithfield Control Board. In contrast to these are the cases where the detailed work of distribution was undertaken by the controlling Department itself. Examples are to be found in flax, wool, jute, and margarine.

One of the chief contrasts between different schemes was the extent to which the controlling departments found it necessary or desirable to employ all the existing firms in a trade. At the War Office the rule against employing middlemen was applied with a severity which caused undoubted hardship. At the Ministry of Food the general rule was rather to employ every one in the trade, so far as was compatible with efficient organization. Thus at the War Office jute for military purposes, the whole of the Russian flax supplies, and a large proportion of Colonial wool were sold to manufacturers direct without intermediaries. Manila hemp and Indian kips, however, were distributed through the usual merchants, who earned a small commission. In the purchase

of British wool most firms were employed as agents, but very small firms had to be affiliated as sub-agents to larger firms. Under the meat scheme live-stock dealers were not permitted to deal in cattle for slaughter, but practically every other class of trader—auctioneer, salesman, carcass butcher, and wholesaler—was employed as Government agents, except at Smithfield, where a Control Board was set up and took over the stalls of private firms. Among oilseed brokers some firms were able to take it easy, or even go out of business altogether, without losing their share of the pooled commission received and administered by their Association.

A point closely linked with the foregoing is the extent to which customary trade channels and existing practices with regard to weights, measures, discounts, and commissions were maintained or modified. At the War Office, in hemp and hides, manufacturers were permitted to choose their own source of supply, but in wool and flax, trade connexions were broken. In British wool, however, it was arranged that the wool-buying agents should not know the manufacturer to whom their supplies were allotted, thus preventing new trade connexions being formed. At the Ministry of Food the meat trade was completely transformed by the exigencies of rationing, and trade connexions had to be ruthlessly broken. In butter, cheese, and other foodstuffs they were retained so far as possible, until rationing rendered them impossible.

For the most part, trade customs were retained, but customary commissions were sometimes modified, such as those received by leather factors and Smithfield salesmen, and greater uniformity was established in the weights and measures of agricultural products, such as wool and milk, in the cuts of meat, and in the quality and constituent elements of margarine and edible fats. Customary 'marks' were generally retained, as in flax and jute, but they were superseded by an official grading system in Colonial wool. The 'dead weight' system was encouraged in the meat trade, and scientific grading was introduced in the milk trade.

As a rule remuneration was fixed at a flat rate commission or margin per unit handled, calculated to cover the ascertained expenses incurred and a normal pre-war rate of profit. A sliding scale would sometimes be arranged, as in the case of

British wool merchants, allowing for variations in quantities and qualities handled. The decreased turnover of many traders under control was recognized as a ground for allowing a rather higher rate of profit than in normal times. In other cases where a few brokers or agents handled a larger volume of transactions on Government account than they would in normal times, the customary rate of commission would be reduced. In the case of collective agreements such as those made with live-stock auctioneers, oilseed brokers, and wholesale meat traders, the commission would be paid to the Association, and the distribution to individual members would be left to its responsibility. This system enabled the Government to escape the difficulty of fixing individual quotas and making allowances for increase or loss of business. The auctioneers made special allowances to members hard hit by control, and the oilseed brokers divided up their remuneration on the basis of pre-war turnover without any reference to the volume of work done during control.

In the expenses of distribution covered by the fixed commission there was often included the cost of financing stocks handled on Government account. The merchant, that is to say, paid the Government, and was himself responsible for obtaining payment from the manufacturer to whom he was authorized to sell. Sometimes this would mean giving the customary trade credit of fourteen days or more. This was the practice in oilseeds, hemp, butter, and cheese. In British wool, the Government itself paid the farmer and received payment direct from the manufacturer. Live-stock auctioneers and wholesale meat traders, on the other hand, financed transactions on Government account as part of their duties as agents, and accounted to the Ministry of Food for the balance. Their accounts had to be kept in a form prescribed by the Ministry of Food, and were subject to inspection and audit.

It is evident that an agency agreement of this kind differs little from that of a wholesale or retail firm trading on its own account under Government supervision, with buying and selling prices fixed so as to leave a definite margin to cover expenses and profit. The chief difference was that a live-stock auctioneer or a wholesale meat trader, if for any reason beyond his control, such as bad grading, he incurred a loss, could recover the amount

from the Government. Recognized agents were guaranteed a fixed margin ; traders operating under control but not as agents were limited to a fixed margin but were not guaranteed it. This explains why retail butchers had to bear the loss of bad grading, while wholesale meat traders passed it on to the Government.

It would be interesting to compare the different systems adopted from more general points of view, and to consider how far each was the most economical, or the most convenient, or the least unpopular having regard to the circumstances in each trade. But here the criteria are lacking. Personal and psychological factors enter in, which would necessitate carefully drawn questionnaires throughout the whole of a trade to elucidate. Broadly speaking, it is a safe generalization that things went most smoothly when the trade ran itself, and when control was exercised by an expert in the trade, who was known and respected ; and least smoothly when ruthless economy was aimed at, to the neglect of usual trade channels and established expectations of a reasonable livelihood.

The main points of resemblance and difference having been sketched, the various schemes may be roughly classified as under.

1. *Individual Agency Agreements.*

i. *British wool.* All large wool merchants were employed as Government agents at a flat rate of commission per lb. with a sliding scale of allowances and deductions for exceptional quantities and qualities handled. Purchases were financed by the Government, except in the case of small lots in England and Wales, and local purchases in the interior of Ireland. Small firms were affiliated to larger firms as their agents. Sales were made direct by the War Office to manufacturers without reference to established trade connexions. Farmers were allowed considerable freedom of choice in selecting the agent who would buy the wool. This system worked smoothly and economically, and after the first year there were few complaints (Chapter XI).

ii. *Manila hemp.* Importers were employed as agents and financed by the Government, and all established wholesale distributors were allowed a commission (fixed at a flat rate per ton) for selling to manufacturers. Manufacturers were free to select their distributing agent. Trade channels were maintained

practically unaltered, subject to the exigencies of rationing in order of priority. The scheme was simple and generally acceptable (Chapter VII).

iii. *Russian flax.* The four largest firms with branches in Russia were appointed buying agents at fixed margins and financed by the Government. Distribution and sale were conducted by the War Department Flax Office without the employment of merchants and middlemen. Considering the special difficulties, the system worked well. It was accepted with relief by most manufacturers, but was unpopular with the traders who lost their business (Chapter VI).

iv. *Butter and provisions.* Until the introduction of rationing rendered modifications necessary, the usual practice was to employ all wholesalers as agents at a fixed commission and to allocate supplies to them in proportion to their turnover in previous years, thus preserving existing trade channels and connexions.

2. Collective Agency Agreements.

i. *London Wool Brokers Committee.* Owing to direct Government purchase, Colonial importers lost their wool business and many of the smaller merchants and middlemen, who were not also topmakers, were eliminated. The Government sold direct to manufacturers without intermediaries; but also employed the London Wool Brokers, who pooled their business and formed a single agency called the London Wool Brokers Committee. The customary commission was paid with sliding-scale reductions based on quantity handled.

ii. *Wholesale Meat Supply Associations.* All the wholesale meat traders of the country were required to join their local Association as a condition of acting as Government agents. These Associations appointed councils and executive committees, which supervised the operations of individual members and kept accounts on behalf of the Government. Commission was fixed at a normal percentage on turnover. In London the normal percentage of $2\frac{1}{2}$ per cent. was insufficient to cover expenses in view of the reduced turnover, and other arrangements had to be made, which led to the establishment of the Smithfield Control Board. The Wholesale Meat Supply Associations

proved efficient and acceptable to the trade. The chief criticism came from retail butchers, who were not constituted Government agents nor guaranteed against loss.

iii. *United Kingdom Oilseed Brokers Association.* This body acted as sole Government agents for the distribution of oilseeds, oils, and fats, and all firms in the trade were required to join it as a condition of doing business. Commission at the rate of 1 per cent. was credited to the Association. Members were free to compete for business, and manufacturers could employ whom they chose; but remuneration was divided up by the Association on the basis of pre-war turnover, not current business. Members used their own capital to finance purchases and sales on behalf of the Government. This system worked smoothly and was generally acceptable, though it was probably not the most economical system possible; but a more rigid organization in the interests of economy would have meant less individual freedom of choice and more controversy.

3. *Controlled Monopolies.*

Examples of this are to be found in the case of tobacco and petrol, and, so far as London is concerned, in the control of milk distribution. In these cases the ordinary machinery of distribution was made use of, viz. the agents, branches, and depots of the existing organization, under the general supervision and direction of the Government.

4. *Semi-Official Trade Organizations.*

i. *The Butter and Cheese Imports Committee* was virtually a sub-department of the Ministry of Food, though it consisted of traders. Its expenses were met by a fixed percentage on turnover. All the regular importers had their share in the business of handling and distributing the butter on arrival. Purchases were financed sometimes by the Government, sometimes by the Committee through banks.

ii. *The Smithfield Control Board* was financed by the Government, but consisted of meat traders and was run as a separate business concern. The members of the Board received a salary, but were entitled to benefit by economies in administration.

Firms whose services were not needed received interest on their capital and in return gave up their premises, their staff, and their equipment for the use of the Board.

5. *Official Distributing machinery.*

Examples of both buying and selling by the controlling department without the employment of any outside agents are rare ; the best example is to be found in jute, where the Government only bought and sold the raw material required for Army goods. Colonial wool, apart from the London Wool Brokers Committee, which only handled a part, was sold and delivered by the Government to manufacturers ; and the Government had its own distributing warehouse in Bradford. Russian flax was sold direct by the War Office Flax Office.

The Margarine Clearing-house is the best illustration of a purely official distributing organization. Though there were manufacturers on the Board, the office and staff belonged to the Ministry of Food. This system worked satisfactorily, its successful establishment being due to the absence of any regular and well-defined channels of wholesale distribution before the war.

To this brief classification of the five main kinds of distributing machinery may be added a general conclusion, which reinforces what has been said in preceding chapters. The achievement of an ordered plan depends on central organization ; but the centralization need not necessarily be in the hands of the Government. The more any trade was organized, the less Government intervention was needed ; and the more individualistic the methods and traditions of any trade, the more bureaucratic and highly centralized became the emergency organization. Since few trades were organized into trusts or combinations before the war, a large dose of officialism was necessary to weld the distributing machinery into a workable unity ; but towards the end of the war, especially at the Ministry of Food, this stage had been passed and new forms of self-governing associations of traders with special constitutions and delegated powers took the place of the autocratic régime by which control was at first inaugurated. The distributing trades functioned like established professions, run on behalf of the nation under prescribed rules and for recognized fees ;

and this development of control probably did less violence to the instincts and traditional outlook of the trading class than is commonly supposed. The established merchant resents the intrusion of the upstart rival and the irresponsible speculator ; he tolerates and maintains friendly relations with other well-established firms ; and he takes a pride in earning a reputation for solidity, sobriety, and courtesy, which are the fruits of the best kind of professionalism rather than of a predominantly competitive and acquisitive outlook. As a class, wholesale distributors are already to some extent professional in their outlook, and they are gradually tending, like accountants, auctioneers, and brokers, to become more professional in their organization. The self-governing associations established in the meat trade and the oils and fats trade may prove to be anticipations of a form of organization which will one day become the rule rather than the exception in the commercial world.

CHAPTER XXIX

ORGANIZED DISTRIBUTION

Adjustment of supply and demand at fixed prices — Rationing and organized distribution — Contrast with free market — Cotton and grain markets — Futures, crop statistics, standardization, speculation — Other produce markets — No futures, imperfect standardization — Unorganized markets — Influence of rumours and commercial instinct — A story of cement — Monopoly distribution — Centralized planning and adjustment — Changes of price less frequent — Uniform prices in different places — Standardization of quantities and qualities — The importance of reserves.

The clearing-house system under control — Jute, flax, hemp, wool, meat, vegetable oils, and margarine — The zoning system — Economy of transport — Financial pooling — Free carriage — Averaging costs — Selling price determined by average rather than marginal cost — Pooling costs of related products — Soap, paint, and margarine.

Post-war developments — Gold, petroleum, rubber, and grain — Possibilities and limitations of organized distribution.

ONE of the threads running through the foregoing chapters has been the emphasis laid on the attempts made consciously or unconsciously to 'suspend the laws of supply and demand'. So far as this aim can be said to have been accomplished, it was effected by the deliberate adjustment of supply and demand by organized distribution. It was the application to a whole nation, even of whole groups of nations, of the political economy of Robinson Crusoe on his island, of the principle of 'cutting one's coat according to one's cloth'. Rationing in the familiar sense was only a small part of this process. Individual rationing was an important novelty in the economic sphere; it struck the imagination of all, and it was an experiment that none would care to repeat; but it was not the most characteristic feature of war-time control—even of food control. It was never applied to boots or clothing, or to cheese, milk, or bread. And even in meat and fats, where it was most in evidence, it became less important as the organization of supply and wholesale distribution improved. Without these it would have been almost useless. Ration cards had to be honoured; and the only way to guarantee the consumer his supply was to ensure that the retailer obtained his right quota. With or without individual rationing, the real

problem was to organize wholesale distribution from the source of supply to the shop counter. On what principles this was accomplished and how far the methods employed modified the ' laws of supply and demand ' will be briefly discussed here.

To begin with, it is worth noting that the laws of supply and demand work in extraordinarily different ways in different parts of the business world. A free market in the absolute sense nowhere exists. Much of the old abstract reasoning about supply and demand is so inapplicable to actual business to-day as to appear irrelevant or utopian to the present age. If the first task of economics, considered as a science rather than as a branch of philosophy, is to describe the facts, it must be admitted that the actual working of the markets of the world has been very imperfectly studied or recorded. For the purpose in hand reference will be made to four main kinds of market, in each of which the mechanism by which supply and demand are adjusted has a special character.

The first kind is best illustrated by the cotton market and the grain market. These approximate most closely in normal times to the idea of a free market. By means of publicity, official price quotations, and telegraphic communications they are virtually world markets, though the actual buying and selling is concentrated in a number of different places, such as Chicago, Liverpool, London, Calcutta, and other centres where merchants congregate. Supply and demand are automatically adjusted by the extreme sensitiveness of the price barometer ; continual small fluctuations produce proportionately large results ; elements of time and space are averaged out ; and the large amount of speculation which takes place, especially in cotton futures, ensures under normal conditions a fairly steady price and a reasonably satisfactory adjustment of production and consumption. One point to be noted is that official and semi-official forecasts of harvests and crops, and statistics of acreage and out-turn, give an important element of stability to the market ; merchants and speculators are to a large extent protected from the vague rumours and false reports which in many other markets exercise such a disconcerting and incalculable influence. One condition of the perfect market in an economic Utopia would be perfect knowledge on the part of

operators. In practice, fluctuations are least, and the process of averaging out climatic and seasonal changes proceeds most smoothly where both the demand and the supply can be estimated within reasonable degrees of probability. This condition is realized in cotton and wheat better than in most commodities; and official crop statistics, where their impartiality can be trusted, as in India and the United States, are an important contributing factor in keeping speculation within bounds. In striking contrast with a world market of this kind is the foreign exchange market for depreciated currencies, where both supply and demand are almost incalculable at the present time even by experts. Rumours and the caprices of ignorant speculators throughout the world have had more to do with the changing values of the mark than the numbers of notes printed or the actual payments that have had to be made abroad by Germans. Another feature of the cotton market is the standardization of qualities, which enables the speculator to gamble with bits of paper without ever seeing or touching a bale of cotton. In most other commodities buying and selling in the wholesale market is confined to experts, who have to appraise the quality and relative value of each parcel, often by actual inspection. This difficulty does not apply to German mark notes; apart from forgeries they are homogeneous enough to be recognizable even by the amateur.

The second category of markets is found in the majority of raw materials and foodstuffs with which this book is concerned, e. g. wool, meat, hemp, flax, jute, oilseeds, oils, and fats. The chief characteristic of these markets is that there is no well-organized system of dealing in 'futures'. In the absence of 'futures', which act as the best automatic regulator of supply and demand, the tendency is for price fluctuations to be more influenced by considerations of time and place. Again, standardization is less advanced. With the exception of Manila hemp, which is officially graded by the United States Government, these commodities are either sold under private firms' marks, like jute, or by a more or less significant description, such as 'fair average quality'. The principle of *caveat emptor* necessitates expert knowledge on the part of dealers. A skilled wool buyer enjoys a highly developed sense of smell and touch, and a correspond-

ingly high salary. Tea and wine have to be tasted; meat is appraised by a well-trained eye. For these reasons and others, speculation by amateurs is less popular in these markets than in cotton, marks, and stocks and shares.

The third broad division includes commodities in which there is no organized market at all. Commodities in the second class can be bought or sold at any time in London and other big commercial centres. Mincing Lane is the principal market of the world for jute, hemp, oilseeds, &c. Smithfield and Chicago are the world's meat markets, and the London Sale Rooms are the centre of the world's wool trade. But in many articles there is no central market, but merely a number of dealers. These dealers, scattered over the world, may in a sense be said to constitute a market. But their mutual relationships are far less intimate than those of brokers on a Produce Exchange; and it often takes time to find a buyer or a seller. Trade connexions and long years of experience are required before a man can hope to operate successfully in a market so diffuse and unorganized. Most finished articles and a number of raw materials are bought and sold wholesale in a market where buyer and seller negotiate by correspondence or by personal calls. Commission agents, commercial travellers, advertisements, price lists, and trade circulars take the place of the chaffering of the horse-fair or the clamour of the Chicago pit. The chief characteristic of this form of marketing is that it is much harder for any single firm to know what is going on and still more to forecast the future. Rumours, guesses, and the so-called 'commercial instinct' play a predominant part; supply and demand adjust themselves less smoothly, and large variations of price occur in different places and at different times under the influence of local, temporary, or even personal causes.

An illustration will make these generalizations clearer. In one of the Crown Colonies a representative of a London tea and rubber company heard a rumour going round the clubs that there was likely to be a big demand for cement in the near future, as the Government was expected to embark on a large programme of building and constructional work. He therefore advised his head office to buy cement and ship it out, adding that he was confident large profits could be made. The head office did not act on his

advice. But other firms who heard the rumour were less prudent. In a few weeks a continuous stream of cement cargoes began to arrive, till the ports and warehouses became congested. But when it arrived it was quite unsaleable. The Government found prices going down, and therefore decided to postpone its building programme until the cost of production had reached its lowest level. Meanwhile the limited financial resources of the Colony were locked up, and its ports and warehouses were congested with a commodity for which it had no use at all. As a result it could not afford to import the commodities it did require. Such are the disastrous results of a rumour in a market which is no market. Adjustment of supply and demand under such circumstances approximates to the limit of imperfection as nearly as in the cotton market it approaches the limit of perfection.

At the opposite end of the series from the cotton market is the machinery by which supply and demand are adjusted by a large trust or combination, which has a virtual monopoly of the commodity in question. Here again there is a market which is no market ; but so far from distribution taking place in a haphazard way under the influence of rumours, personal relationships, and business instinct, the adjustment of supply and demand and the regulation of prices and distribution are governed by exact calculations and elaborate statistics. The flow of supplies and the total volume of demand are revealed to a single brain. A temporary surplus can be dealt with in alternative ways : by a deliberate reduction in price in order to stimulate demand ; by a carry-over accompanied by a reduction in the buying price in order to reduce the supply ; or, if the combine is a producer as well as distributor, by diminishing the acreage, running short time, or in other ways checking production. Similarly a temporary excess of demand over supply can be met either by raising the price, or by drawing on reserve stocks, or even by some system of rationing without raising the price. At the same time immediate steps can be taken to stimulate production. In soap, cotton thread, petroleum products, borax, tobacco, milk, bottles, bedsteads, wall papers and many other commodities, which are subject to rings, price agreements, or combinations on a national or an international scale, supply and demand are or have been

adjusted to a greater or less degree by centralized planning and statistical organization. It is this system that supplies the closest analogy to the mechanism by which supply and demand were regulated under Government control. The central feature of the mechanism of State control, which was the regulation of supply and distribution from a single centre, is also the main feature of large distributing trusts and kartels.

One important characteristic which distinguishes organized distribution from free distribution is that changes in price are less frequent. The higher the degree of centralization and the more extensive the statistical information available, the steadier becomes the level of price. Price changes are felt to be a disturbing element which should be reduced to the minimum. Every rise or fall confers an unearned profit or inflicts an undeserved loss on holders of stock. When rises and falls are due to forces beyond control, profits and losses are faced with equanimity. But when every alteration is the deliberate act of a Government Department or of a single firm or group of firms, the results, whether they confer a benefit or inflict a loss, are apt to arouse criticism and complaint; for what is one man's profit is another's loss and vice versa. Uniformity of price can be secured by averaging out seasonal and other variations in cost.

Besides a tendency towards price uniformity in time, centralized distribution shows a preference for price uniformity in space. Petrol, tobacco, soap, cotton thread, and proprietary articles of every kind are in this country sold at fixed prices throughout a wide area, practically co-extensive with the United Kingdom. The retailer is allowed a fixed commission or margin, and becomes virtually a selling agent. Transport and intermediate expenses are pooled and averaged out, so that the consumer nearest the point of production pays the same price for his tobacco, soap, and cotton thread, or under control for his meat and margarine, as the consumer in the most distant town or village. One strong reason for this under control was the difficulty of arbitrarily fixing differential prices according to distance. To be exact, a differential price schedule would have required an infinite range of differences; anything less was bound to be arbitrary and to involve anomalies at the dividing lines between areas. The same sort of considera-

tions, combined with the advantage of being able to advertise one price in place of a number of different prices, no doubt explain the uniformity of tobacco and petrol prices in every shop which is reasonably accessible to the sources of supply.

Uniformity is also obtained by standardization of quantities and qualities, so that the same goods may be sold at the same price. Uniform prices are naturally only applicable to standard qualities and standard amounts. For this reason monopoly articles are commonly sold retail in the maker's packages, which, besides constituting a guarantee of quality, also certify that the weight or amount corresponds with the description. Standardization of weights and measures, of the 'cuts' and joints of meat, of the contents of margarine and sausages, the containers of milk, the grades of wool, and the chemical constituents of oils—to mention but a few illustrations—were necessary under control not merely to protect the consumer from fraud but as an essential condition of fixing prices at all. In the absence of recognized grades price-control had to fall back on the device of fixing a percentage addition which might be added to the prices ruling at a previous date for similar but unspecified qualities.

Finally, distribution takes place and prices are fixed in accordance with some policy or programme which takes into account on the one hand the ascertained and estimated demand, and on the other hand the ascertained and estimated supply. Past, present, and future are passed under review, and represented statistically by curves, charts, and diagrams. With these aids the central office plans a long period policy, a normal programme for current use, and emergency adjustments to meet abnormal circumstances as they arise from time to time. Such planning is easier in normal times, when supplies are flowing smoothly, than in war-time when supplies were precarious and consumption had to be severely restricted. It is easier, too, in the case of a commodity which will keep, like tobacco and soap, than in the case of a perishable commodity or a commodity the supply of which is inherently irregular, like fresh meat or milk. Adjustments in non-perishable goods can be met in normal times by building up and drawing upon reserve stocks. In perishable goods the adjustment has to take the form of rapid

diversion, which needs an efficient and decentralized system of administration ; or again, a temporary surplus may be put into cold store or used for some other purpose. The regulator in wholesale milk distribution is the milk trust's own milk products factories, which take less or more according to the directions of head-quarters ; in the meat trade under control the reservoir for keeping the flow steady was the cold store and the frozen meat reserve. Factories for making dried vegetables, bottled fruits, and potato flour, served a similar purpose under the German Food Administration.

The clearing-house system

The system of deliberately adjusting supply and demand by organized distribution has been referred to as the 'clearing-house system' of distribution. Just as debits and credits are said to be 'cleared' in the Bankers' Clearing-house, so supplies and requirements, surpluses and deficits were 'cleared' under control. The metaphor suggests the further resemblance that it is only the balances left over, after the main adjustments have been settled without difficulty, that require special attention. Even in meat and milk the normal programme worked smoothly enough ; it was the loose ends and the misfits that caused the trouble. And as the organization was perfected, many of these could be dealt with locally by regional offices without reference to head-quarters.

The clearing-house principle was first seen in its simplest form at Dundee, where a single office arranged the transfer of yarn at fixed prices from spinners to weavers. A clerk at the end of a telephone wire took the place of a crowded market and the excitement of bidding and bargaining. In Russian flax the central pivot was supplied by the personnel and quiet routine of a City office installed in an obscure branch of the War Office. Jute and hemp were allocated to applicants at regular intervals in strict proportion to the supplies available and the degree of priority to which each firm was entitled. In wool the procedure was more complicated owing to the scarcity of supplies and the wide range of different qualities. The central clearing-house in Whitehall had to be supplemented by various forms of rationing machinery

set up by the trade itself, and the allocation of tops and yarn was from the outset managed by a local office in Bradford. In meat each local live-stock market was a clearing-house presided over by the auctioneer, who with the aid of the Farmers Selection Committee on the side of supply and the Butchers Allocation Committee on the side of demand regulated as best he could the flow of supplies from the local farms to the local shops. Surpluses and deficits had then to be adjusted between neighbouring districts by the Area Live Stock Commissioner and his Area Meat Distribution Committees ; and finally, adjustments between Areas and the balancing of supply and demand over the whole country and over a long period rested with the central Meat and Live Stock Board in London, assisted by the National Meat Distribution Committee. A similar system of centralized planning and decentralized execution of a general programme is found in the various branches of oils and fats control. Allocation of raw material in bulk for different trades and monthly programmes of deliveries for various purposes were settled at head-quarters. But the individual transactions and the splitting up of supplies between different firms were carried out locally by Trade Committees or Controlled Associations. Finally, the Margarine Clearing-house illustrates in name as well as in fact the adaptation of the clearing system to the wholesale distribution of foodstuffs. A normal programme was drawn up under which certain districts would be tied to certain manufacturers, and constant adjustments, especially before the scheme had got into full working order, were made by telegraphic instructions from the Clearing-house in London to meet local and temporary shortages and to dispose of abnormal surpluses. The Margarine Clearing-house, the Board of which comprised the leading manufacturers, employed few wholesale merchants as agents ; it gave delivery orders direct from the factory to the retailer, often using the Executive Officer of the Local Food Committee as the sole intermediary.

Pooling of transport

One feature common to these various schemes was the endeavour made to limit transport and cross-hauling to the minimum. Under the free play of economic forces it frequently happens

that similar goods move in opposite directions. Milk going from South Wales to London will cross milk going from Gloucestershire to South Wales. Margarine made in London will be sold in Manchester, and equally good margarine made by a different firm in Manchester will be sold in London. During control the railway companies were short of fuel, short of labour, and congested with munitions traffic; and instead of soliciting fresh traffic, as it pays them to do in normal times, they were constantly urging the controlling Departments to reduce their use of the railways to the minimum absolutely necessary. This led to the general introduction of what was called the 'zoning system' of distribution, which meant the splitting up of Great Britain into 'zones' and arranging that each 'zone' should be supplied from the nearest or most convenient source of supply. It should be remarked that this system was bound to conflict with 'the usual channels of trade'; for the usual channels of trade are a tangled skein in which the strands are inextricably intertwined. It could only be introduced when force of circumstances, or the consent of the majority of traders, rendered a clean cut with the past possible and desirable. For it meant breaking 'trade connexions', which the business man values more than immediate profits. Trades which were quite ready to submit to limitation of profits put up strong and often effective resistance to interference with the ordinary trade channels. The system is seen at work in many of the schemes referred to, but not in all. The most striking illustration of the economy of the zoning system and also of the hardship involved was found in margarine distribution, where to avoid unnecessary transport and to simplify the work of the Clearing-house the Maypole shops in the provinces no longer drew their supplies from the Maypole factory, but from neighbouring firms.

Financial pooling

Linked up with the question of economy in transport were the arrangements made in meat and wool and some other commodities, first, to pool all the costs of carriage by rail and average out the result in fixing the selling price; and secondly, to obtain free carriage of the goods on the railways by virtue of their being Government stores. To regard meat on its way from the

slaughter-house or country market to the wholesale meat market in London or Birmingham as in the same category as guns and ammunition for the Army was a notable extension of the term 'Government stores'. But so long as the privilege of free carriage was confined to goods which could be accounted for and controlled by the Government and the carriage on which would in fact be borne by the Government, there was every advantage to all parties concerned in doing away with the unnecessary clerical work involved in making out invoices, cheques, and receipts for every separate consignment. The cost was met by an annual lump sum debited to the controlling department and credited to the Railway Executive's account.

The principle of pooling was applied not merely to intermediate expenses, but to the prime costs of produce obtained at different prices from different sources. Occasionally, where uniform producer's prices were not the rule, as in milk, the different sources were domestic and internal; but in the majority of cases the different price-levels, which had to be averaged out, were those ruling in foreign sources of supply. Thus frozen meat was obtained at different prices according to the country of origin, Australian and New Zealand meat being the cheapest, North American the dearest, and South American intermediate between the two. For selling purposes uniform prices had to be fixed; fresh and frozen meat from all sources were pooled. North American meat, which represented a comparatively small fraction of the total supply, was thus sold below cost price, and Australasian meat was sold at a profit. A profit in one direction was used to offset a loss in another. Similarly, imported butter was obtained from a number of different sources, and the cost price varied widely according to the state of the market in the producing countries. Danish butter would cost over 400*s.* a cwt., while South American or New Zealand butter could be obtained for less than 200*s.* a cwt. Under control the wholesale price could be fixed at a figure which represented roughly the weighted average of the buying prices, viz. about 220*s.* per cwt., which was equivalent after adding distributing costs to 2*s.* 6*d.* a lb.

It should be noted that in the absence of centralized purchase and distribution the selling price would have approximated rather

to the cost of the marginal unit of supply, viz. Danish butter, and huge profits would have been realized by way of differential rent by the producers in the cheaper sources of supply. Alternatively, if the consumption of butter had fallen off to such an extent that the whole of the supplies available could not be absorbed at the price necessary to attract Danish butter, prices would have come down below the level at which Danish butter would be imported. There would consequently have been a smaller supply sold at a higher price than under the system of centralized purchase, when selling prices were determined by the average cost instead of marginal cost. This conferred a benefit on wealthy consumers which the economists call consumers' rent ; but it also conferred a social benefit on the health of the community as a whole, by rendering supplies available to many people who in a free market would have gone without rather than pay the price necessary to attract sufficient supplies.

An extension of the 'financial pool' is found in Oils and Fats control, where the principle of pooling was applied not merely to similar products from different sources, such as Argentine and Indian linseed or Egyptian and North American cotton oil, but to different products from different sources. For example, American oleo, which had to be bought at high prices in the United States in order to economize tonnage, was sold below cost price, so as to maintain its selling price at a proper parity with other raw materials used for a similar purpose. The problem here was, given so many raw materials in such and such quantities at such and such prime cost, what was the minimum price at which margarine could be sold, so as to cover the total cost of all the raw materials involved ? Having determined this, it remained for the Oils and Fats Controller to adjust the selling prices of all his raw materials, so as to preserve the proper balance between them and to leave the manufacturer only the agreed conversion cost ; and this involved standardizing the proportion of each raw material which went into the finished product. A still further step was taken, when by an adjustment of the selling price of refined oils and residues the retail price of soap began to have a direct bearing on the retail price of margarine. Soap and margarine between them had to cover the cost of a wide range of

raw materials ; it followed that through the institution of the central pool the price of margarine could be kept steady by an increase in the price of soap. Indirectly also, the high cost of paint, varnish, and linoleum cheapened margarine ; and the low price at which the Ministry of Munitions requisitioned glycerine, raised the price of soap. Price policy was thus guided by consideration of the social utility of the product. As the raw materials increased in price, the higher cost was thrown on to linoleum, paint, and soap, while the price of the more socially necessary products, glycerine and margarine, remained unchanged.

The possibilities and limitations of organized distribution at fixed prices deserve more study than is here possible. In periods of national emergency, when self-preservation demands it, it has been shown to be possible ; but in normal times the adjustment of supply and demand over any length of time without fluctuations in price presents very great difficulties. Nevertheless, there are tendencies which point in this direction. Price-changes are necessary and inevitable, but on all hands there is a demand that they should be kept within bounds. Producers and consumers alike demand greater stability, and some mitigation of booms and slumps and of the profiteering and unemployment which they bring in their train.

Stabilization appears to be possible in the case of one commodity where changes in value are recognized to have specially evil results. The Report of the Financial Commission of the Genoa Conference has endorsed a plan for regulating the value and distribution of gold which bears a certain resemblance to the principles of war-time control. By international co-operation between the central banks it is hoped to reduce, if not altogether to eliminate, fluctuations in the value of gold ; and the chief feature of the scheme will be an understanding as to the distribution of reserves and the adoption of a common policy with regard to their utilization. Such a policy by steadying the general level of prices might render it easier to stabilize other commodities.

A similar motive is seen at work in the oil industry. The large combinations which control the production and sale of petroleum already do much to mitigate price fluctuations, but the boom of 1920 and the succeeding slump upset the equilibrium

of supply and demand and threw production into confusion. The possibility of stabilization was discussed by the President of the Standard Oil Company in his address to the American Petroleum Institute in December 1921. He pointed out that the adjustment of supply and demand by any other means than automatic price-changes would involve, first, the building of adequate tank storage, and, secondly, the creation of a world monopoly. The former he considered within the bounds of commercial possibility, but the second was immensely more difficult if not impossible. If voluntary co-operation by the existing large trusts is unlikely to be realized, inter-Governmental action similar to that suggested in the rubber industry may eventually prove necessary. It is significant that during the boom when speculation had forced prices to an extravagant height, the Commercial Motor Users Association of the United Kingdom and the Petrol Sub-Committee set up under the Profiteering Act, recommended that Governments should take action through the League of Nations to regulate the price of petrol. In oil, as in gold, adjustment of supply and demand at fixed prices would involve the pooling and centralization of reserves and the adoption of a common reserve policy throughout the world.

Whether stabilization is likely to be achieved in other commodities by similar methods is more doubtful, but a gradual move in that direction is manifest. British and Dutch rubber producers have demanded inter-Governmental action to control the price and regulate the production of plantation rubber. Grain growers in Canada, Australia, and the United States are increasingly favourable to the principle of collective sale, and there is a movement, extending even to cotton growers, for Government guaranteed prices and the building of Government warehouses for the maintenance of reserves. These tendencies represent rather an instinctive reaction against the worst effects of the present slump than a conscious effort to transform the whole system of marketing. It is a long step from isolated schemes of collective sale, even under Government auspices, to a world monopoly effective enough to eliminate fluctuations and undertake a comprehensive adjustment of supply and demand. And even with the most complete machinery of stabilization, price-changes would

never be completely ruled out. The object to be aimed at would be rather to substitute deliberate and infrequent changes for the constant fluctuations of speculative markets.

At the time of the Armistice, when inter-Allied Executives were controlling the price and distribution of a score of staple products, plans of this kind were widely discussed and might have proved at least administratively possible. But the psychological conditions were absent. Reconstruction became identified with freedom from State interference, and international co-operation in the economic field gave place to a period of instability, speculation, and fierce competition.

CHAPTER XXX

REACTION AND RECONSTRUCTION

The transition from war to peace — Conflict of opinion on the future of State control — An overwhelming demand for freedom — Permanent influences of war-time control — The study of administration — Decentralization and initiative — Delegation of responsibility — Distinction between business administration and administration of law — Publicity — The importance of criticism — Advisory Committees — Statistics and quantitative measurement — Civil servants and business men — The results of co-operation — The qualities necessary for successful administration — Administration as a profession — Effect of control on industry — Development of combination — Reaction after the war — The need for stability — Merchants as agents — Marketing as a profession — Progress and stagnation — Conclusion.

DURING four years of war the intricate mechanism of commerce and industry had been gradually taken to pieces, and its parts had been forcibly adapted to fit the military machine. So far-reaching an upheaval in the economic foundations of modern society, deliberately organized by the most powerful governments in the world, was bound to leave the future course of trade and prices incalculable and hazardous in the extreme. The vital task was to re-establish normal conditions of peaceful trade and intercourse. How was this task approached? What happened to the elaborate structure of State control? And what permanent influences, if any, remain?

For a time two opposing views struggled for predominance. Before the end of the war ambitious plans for reconstruction were drawn up, usually depending on some form of Governmental or inter-Governmental control. It was hoped that by adjustments and improvements in the existing organization, by more forethought and concern for the general welfare, and by concentration on the essential before the unessential, the economic mechanism could be brought into greater harmony with the democratic and equalitarian ideals which the war had evoked. State organization had proved effective for making war; might it not prove equally effective in the more beneficial task of peaceful reconstruction?

The war produced a socialistic ferment. Nationalization of public utilities and collective control of private enterprise became the watchwords of the masses. Large-scale organization and scientific planning for a time captured the imagination of men of affairs. A minority even of those who advocated an early return to freedom and competition were afraid of too rapid decontrol, and urged that Governments should remain responsible for directing trade and industry until such time as a stable equilibrium had been reached. It was argued that the economic system, which had been transformed out of all recognition by the deliberate action of Governments, could not be expected to readjust itself to the needs of peace through the unco-ordinated efforts of hundreds of thousands of separate individuals. Some guiding hand seemed necessary to replace and reknit the broken threads.

The contrary view prevailed. The immense majority of bankers, manufacturers, traders and shopkeepers desired above all things an immediate removal of the restrictions which hampered their free activities and reduced them to cogs in a vast and cumbrous machine. Reconstruction to them meant freedom and scope for enterprise. Without complete freedom trade would stagnate. Prosperity, progress, confidence, hard work, and economical management depended on the abolition of State interference and the suppression of semi-official combines and trade associations.

This view obtained earliest and most emphatic expression in the United States ; but it soon found an overwhelming response among business men in Europe. To the business man's dislike of prohibitions and restrictions was added political opposition to socialistic experiments. In the face of this violent reaction tentative plans for retaining some of the best features of war-time control and adjusting them to the needs of peace were swept aside. Decontrol was brought about as the result of an imperious mass movement among the most influential minds of three continents. What remained of State interference were measures of a nationalist and protectionist tendency, and the economic clauses of a Treaty which threatened to destroy the possibility of stable reconstruction.

It is not the purpose of this chapter to consider what might have been, or to conjure back to life the ambitious plans of

reconstruction that preceded the Armistice. But a few suggestions may be offered as to the lessons and results of war-time control.

Public administration

Perhaps one of the most lasting influences will be the stimulus given to the study of large-scale administration. By this is meant, not merely the conduct of public affairs by Government Departments and statutory bodies, but the management of large-scale industry and the operations of combines, trusts, and co-operative enterprises. Every big concern has much to learn in the technique of internal organization, in the development of efficiency, and the encouragement of individual initiative and responsibility. The more trade and industry become trustified, the more they tend to develop the vices of inertia and red tape which are commonly associated with Government Departments.

It is not always recognized by professional organizers that there is a point where uniformity and consistency become incompatible with the freedom and initiative on which success and efficiency depend. The most valuable features of the competitive system are the variety and scope which it provides and the opportunities which it gives, or should give, to countless individuals to develop their personalities and be their own masters. Large-scale organization will never be successful or tolerable for any length of time, until at least as much importance is attached to this human need as to the observance of rules and mechanical uniformity.

It is physically impossible for one brain to give decisions upon more than a limited number of questions in a single working day. While the director of a one-man business can personally control every operation of his firm, the head of a Government Department or of a large public company can only concern himself with a small fraction. Administration of a large concern must therefore be automatic; but automatism is of two kinds, mechanical and organic. A machine works along rigidly predetermined lines; an organism functions by subconscious adaptation of its parts. The ideal of administration corresponds to the automatism of a violinist or an expert skater. Conscious direction by the central brain is confined to the essential minimum; the detailed operations are carried out by a subconscious adjustment of subordinate

organs, and the central brain is only called upon to intervene when a breakdown occurs or a novel and difficult task has to be tackled. The most important part of administration is the work of subordinate officers. The more this is active, intelligent, and unfettered, the more elastic and frictionless becomes the functioning of the whole.

It is a temptation to the man of broad vision to see resemblances rather than differences, to argue *a priori* and lay down fixed rules, rather than to risk experiments and judge by results. An organizer who has confidence in his own judgement is too apt to distrust his subordinates. This undermines initiative, keenness, and the feelings of self-respect and personal responsibility on which efficiency depends.

Decentralization and delegation of responsibility are illustrated in the organization of Wool Purchase and Meat Control. Interference by head-quarters was reduced to a minimum. The risk of mistakes was provided against, not by insisting that every important decision should be referred to the Head Office for settlement, but by placing upon the subordinate officers full responsibility for their actions and leaving it to their discretion whether to obtain a ruling from head-quarters. Uniformity and a common policy were secured as much by periodical meetings between subordinate officers as by central direction. By this means collective decisions were taken which were more likely to be intelligent and generally applicable than a decision taken by a single Director or Minister on his own responsibility.

The war emphasized a distinction between two kinds of public administration. Elasticity and decentralization are easier to introduce in business administration than in the administration of law. In any large office concerned with health or life insurance, for example, whether it be a Government Department or a public company, strict adherence to rules and precedents is inevitable. The methods of the past hang like a millstone about the official's neck. What has been done in one case must be done in every case of a similar kind. But the same rigid consistency is not necessary in buying and selling; what happened in the past is of little concern to the present. Though fairness demands similar treatment for similar cases at any one time, completely new principles may be followed at different times without injustice. A break-

down in the distribution of margarine lost all interest after the week in which it occurred. It could be remedied by adopting different methods in subsequent weeks. The problem in controlling trade and industry was to plan for the future rather than to follow the past. Business looks forward, law looks backward. Greater freedom and fewer records are therefore possible in the administration of trade and industry than in the administration with which Government Departments have hitherto been chiefly concerned. State administration of public services need not necessarily be marked by the rigidity characteristic of the law.

Publicity

The attitude of the public, and especially of the Press, is of crucial importance. Persistent hostility will wreck the best technical organization; and the strongest support for difficult and novel experiments is a tolerant and friendly attitude on the part of the public and the Press. During the war anything declared to be necessary for the effective prosecution of the war was assured of a degree of support quite unparalleled in previous administration of social affairs. The inauguration of National Health Insurance, and even the administration of unpopular taxes under the Finance Act of 1910, were conducted in the face of a strong and well-organized opposition. The far more difficult task of national rationing and control of trade was backed by public opinion and demanded by the Press.

Popular support, or at least acquiescence, may be courted by publicity and propaganda. This of course has its dangers. The political abuses of Government propaganda are obvious; its worst feature is that it is not avowed. But useful publicity need not be surreptitiously inspired; nor, on the other hand, need it be confined to official *communiqués*. What is needed is that journalists should be freely invited to understand and criticize, and to give their own impressions of the work in their own way. Public speeches, both by Ministers and experts, explaining the work of their Department were invaluable during the war, and might be usefully extended in peace. The publicity which is obtained by answering Parliamentary questions is apt to be less useful. The Department is generally on the defensive, and often gives the impression of wishing to conceal and sometimes to

mislead. Many questions too are inspired by political motive, and are designed to embarrass or disparage rather than to obtain information. At the best such publicity acts as a check on bad administration rather than as an aid to efficient administration.

Criticism

Disparagement of Parliamentary questions must not be taken to mean that criticism is superfluous. On the contrary, public administration is not criticized enough. Good criticism contributes to efficiency. But the first qualification of the critic is that he should understand his subject-matter. Musical criticism, dramatic criticism, and literary criticism are often unfair and prejudiced ; but it is not usual for men without any knowledge of music, drama, or literature to come forward as critics. In public affairs there is no such disqualification. The standard of criticism is low because administration is not recognized as an art. It is treated as a branch of party politics.

During the war criticism was all important, because public affairs were less amenable to treatment by prejudice and generalizations. Things were bound to go wrong ; administration was bound to be imperfect ; and an attitude of discreet complacency on the part of bureaucracy was as useless as blind partisanship on the part of the critics for solving the real and urgent problems which had to be faced. Criticism was therefore invited. It was recognized as a vital adjunct to successful administration. Every controlling department had its Advisory Committees of expert and usually forceful critics.

The first essential was that the critic should represent a recognized section of opinion. The reason for this was not that a man who thought like so many others would be likely to be more intelligent or constructive, but that his criticisms would count most and his influence would satisfy those he represented. The next essential was that the critic should be well informed. As no one could be well informed on war-time administration without studying it, this meant that he had to devote a large part of his time to the work. Advisory Committees were useful in proportion to the frequency of their meetings.

Though the best art critic is not necessarily a good artist, an acute critic of administration is often a good administrator.

During the war the most troublesome members of Advisory Committees were often given executive posts. Similarly, valuable advice and criticism were often supplied by experts engaged in similar administration in other fields.

Statistics

Publicity and criticism involve statistics. Cost of production, prices, quality, output, wages, hours, and profits—a mass of information as to these was obtained under control. Without easily accessible statistics criticism is blind and administration is without criterion. Business administration is more easily judged than the administration of justice, since it is capable of quantitative measurement. To refuse such publicity is to invite suspicion. Discontent with the present organization of industry and with much of public administration is fanned by the attempt to minimize and conceal the failures and mistakes that every man knows are bound to occur. Statistics are a solvent. Heated antagonists are more likely to cool down if they have to sit at the same table examining figures. The preparation of statistics provides scope for professional and impartial judgement, and enables the administrator to watch the results of action and draw lessons from experience.

One of the most valuable features of war administration was the collection of data which rendered possible a periodical survey of the whole national effort. A regular census of production and consumption is an indispensable condition of a scientific treatment of economic problems. Such statistics are indeed the raw material of social science; but after the war the need for them was no longer recognized, and the labour and expense involved were considered burdensome and unproductive. The processes of trade and industry were plunged again into obscurity, and the treatment of economic problems became once more a matter of guess-work and improvisation.

Civil servants and business men

The close association of business men and civil servants in the administration of control gave to each an insight into the characteristics of the other which they had rarely had the opportunity of obtaining before. The specialization of the modern

world renders such intimate contact rare. Each profession tends to develop a traditional groove of its own and that of the Civil Service is commonly supposed to be specially narrow and stereotyped. It would perhaps be an advantage if exchange of personnel between the Civil Service and large businesses were commoner than it is.

Throughout the preceding pages the vitally important part played by business men who lent their services to the Government has been emphasized. Without them public administration would have been paralysed. But it would be wrong to suppose that war-time control was solely or primarily due to business organizers. In nearly every scheme with which this book is concerned the initiation and direction rested with permanent officials, who had had no previous experience of commercial affairs. But the execution, the technical capacity, and the personal influence, without which the best-laid schemes would have been unworkable, were almost without exception the contribution of business men who had had no previous experience of Government administration. Where, as in the schemes described in this book, their joint efforts were harmonious and on the whole successful, each acquired a high regard for the qualities of the other; and the result of the association was to modify preconceptions. Intelligence, versatility, and public spirit were not confined either to one class or to the other. Business men learnt that some civil servants had courage and initiative, and that they were generally quick at picking up the essential facts of a new problem. Civil servants learnt that able business men had experience and gifts which no amount of training in a Government office could supply.

There is, of course, a solid foundation for the popular distinction between the two types. The successful business man has more opportunities for developing independence of judgement and a forceful personality. The civil servant by the nature of his profession can rarely be independent or self-assertive. He can exercise little freedom of choice. His individuality is fettered by the fact that he is not his own master. The gifts he needs to develop are tact, subtlety, and industry rather than leadership, forcefulness, and enterprise. But the war showed that there were exceptions to this rule. Many business men brought into Government Departments developed the best qualities of civil servants

and even some of their faults ; and some civil servants were found to possess as much enterprise and dash as the most forceful leader of industry. The inherent qualities of a man are more fundamental than his training and experience.

Fruitful co-operation frequently demanded a new outlook. The civil servant learnt to take risks and assume responsibility, and the business man learnt to work in harness and to take a broad view. Neither the ' typical ' business man, who goes straight ahead without forethought or deliberation, nor the ' typical ' civil servant, who shirks responsibilities and discovers convincing reasons for doing nothing, were characteristic of war-time administration. The type which came to predominate approximated to a new class of professional administrator—a man with a gift for leadership and team-work, a public-spirited outlook, and a moral courage and force of will strong enough to face criticism and conciliate the vested interests in his path.

This professional outlook is becoming commoner in business owing to the growing size of public companies and the increasingly bureaucratic management of trade and industry. Large concerns are run by salaried managers and large salaried staffs. Boards of Directors are responsible for policy rather than administration, like Ministers in charge of Government Departments. And the actual proprietors, represented by the handful who attend a shareholders' meeting, often exercise less influence on the administration of their property than the House of Commons has on public administration. As in the public service, responsibility falls more and more on trained and qualified administrators.

Experience of the war suggests that the best way to develop sound administration is to delegate responsibility, trust the administrator, and judge him by results on his record as a whole. Administration must be recognized as a profession, like medicine or the law, in the sense that its integrity and efficiency depend not so much on outside control as on its own traditions of responsibility and self-respect.

Effects on industry

Of the effect of control on industry it is too early to speak with confidence. On the one hand it gave a stimulus to improved methods of organization. It taught many manufacturers the

advantages of cost accounting. It encouraged co-operation in buying and selling, the interchange of experience, even the pooling of trade secrets. Trade associations sprang up and prospered where hitherto they had been non-existent or unimportant. Mutual assistance was found in a host of ways to mean mutual profit. Unification of contracts, standardization of materials and prices, pooling of orders, and the encouragement of scientific research—these and other matters of common interest became in different industries the conscious aim of professional organizers, who visualized their industry as a corporate unit and even sometimes as a branch of the public service.

But after the war came a reaction from the idea of association. The attraction of unparalleled profits during the boom followed by unprecedented losses during the slump re-awakened the gambling instinct and broke the threads of common interest. Technical efficiency and stable progress along scientific lines became of no account compared with the problem of finding a market and cutting out a competitor. The tidal waves of the commercial and financial crisis which swept over industry after the war have swamped the foundations of the new order which was gradually rising from the ground. New problems have arisen which overshadow all attempts to reorganize industry on a more stable and scientific basis. So long as the instability of currencies and exchanges and the incalculable hazards of foreign trade dominate the industrial situation, self-preservation and self-interest condemn all ambitious schemes of reorganization. Until there is more stability in commerce and finance, industrial progress will be impossible.

When the statesmen and financiers have solved the problems of international finance, the tendencies that were observed during the war may emerge. The supreme need in industry is to find means of maintaining regular production without undue fluctuations of price. The larger become the units of industry, the more disastrous become the social consequences of alternating booms and slumps. The leaders of industry, in their desire to eliminate waste and to improve the technical efficiency of their plant, will be led more and more to combine and co-operate for the purpose of regularizing production and reducing price fluctuations to a minimum.

The tendency towards a professional outlook in industry will thus be increased. With the growth of stabilization and large-scale organization, the manufacturer will be less preoccupied with commercial risks, and will tend to become a specialist concerned with the technical processes of manufacture. So long as he is assured against losses beyond his control, he will not be so interested in realizing the highest possible profit. The test of his efficiency will become the extent to which he is able to reduce costs by improved methods of organization, by scientific attention to detail, and by new technical devices. Side by side with a corporate spirit covering the whole of an industry, there will be keener competition between managers of different factories engaged in similar processes under conditions which make comparison possible.

Commercial organization

If the tendencies indicated above develop in industry, the position of the merchant will become similar to that which it was during the war. In many industries the manufacturer is in a position of dependence on the large merchant. Between the upper and nether grindstone of the merchant and the organized worker he is not in an enviable position. But by combining among themselves and establishing a common policy for buying and selling, manufacturers would escape from their position of dependence, and the merchant would tend to become an agent rather than a principal. In some industries this position has already been reached. Where manufacturers are strong enough to take the risk of the market themselves, the merchant tends to become a broker or agent operating for a fixed commission. Similarly in many of the food trades, especially in perishable commodities, like meat and dairy produce, the merchant obtains his livelihood not by taking risks but by performing definite services for a customary rate of profit. In such cases it is usual to find that the number of merchants or brokers is limited by some form of collective organization. Wherever there is an organized produce exchange there are generally limitations upon the entry of new members; and in many cases it is made almost impossible for an outsider to enter the business without the consent of the trade association concerned. Where these conditions exist

wholesale marketing tends to become an established profession with rules and customs laid down by professional trade organizations.

In the ebb and flow of economic progress two conflicting forces are seen at work, the one centrifugal and the other centripetal. In spite of the disintegration which has followed the war and has caused an instability greater than at any previous period, the pendulum is swinging back towards integration. Over a wide field of economic activity competition between unco-ordinated units is being superseded by a more conscious control of economic processes. Trade Associations and Trusts, agricultural co-operation, consumers' co-operation and State intervention are gradually supplanting the free play of competition by more or less deliberate efforts to control prices, production, and distribution. Technical efficiency, encouragement of research, and better adjustment of supply and demand may result from greater stability and cohesion. But the dangers of such crystallization are obvious. Vested interest and force of habit may stifle initiative and resist experiment and re-adjustment. And the consolidation of trades and industries into professional groups may merely aggravate conflict and disharmony if there is no means of co-ordinating their activities in a wider unity. Nor do the territorial sovereignties of to-day supply a rational basis for such a synthesis. The natural economic groupings are international rather than national, and unless Governments themselves learn to co-operate, their interference may be only a fresh source of mischief.

How are freedom and initiative to be reconciled with large-scale organization, and how are the large-scale groupings themselves to be harmonized in a wider synthesis? A solution of these problems lies beyond our ken. The development of a professional and public-spirited temper in trade and industry, improvements in the technique of administration, and the application of scientific method to the problems of industry may prepare the way; but the fundamental condition is that men should find a common purpose in peace as vivid and compelling as the motives which inspired them during the war.

APPENDIX 1

AGREEMENT CONSTITUTING THE COMMISSION INTERNATIONALE DE RAVITAILLEMENT

18 août 1914.

LE Gouvernement anglais et le Gouvernement français sont d'accord sur le principe d'une entente relative aux achats que les deux pays auront à faire pour les approvisionnements destinés à leurs armées de terre et de mer, pendant la durée de la présente guerre.

Toutefois, le Gouvernement anglais, malgré son vif désir de donner au Gouvernement français dans cet ordre d'idées une aide aussi complète que possible, se déclare dans l'impossibilité, par suite de l'état du marché national et de l'importance de ses propres besoins, de faciliter l'exportation des denrées alimentaires de première nécessité, telles que blé, farine, viande, sucre. Il déclare, en outre, que pour les mêmes raisons, il serait inutile de chercher à se procurer des chevaux en Irlande et au Canada.

Sous le bénéfice de cette restriction, il est institué temporairement à Londres une Commission franco-anglaise qui assurera dans la pratique l'entente dont il s'agit. Cette entente aurait principalement pour effet d'empêcher que les deux Gouvernements se fissent concurrence pour leurs achats sur les marchés extérieurs, concurrence qui n'aurait pas manqué de provoquer la hausse des prix.

Dans ces conditions, les membres de ladite Commission, qui seraient constamment tenus au courant des besoins et des ordres de leurs administrations respectives, échangeraient tous renseignements qu'ils posséderaient, tant sur les opérations faites ou projetées par ces administrations, que sur les stocks disponibles et les prix payés ou demandés, sur les marchés visés.

Cette collaboration n'affecterait naturellement pas la liberté que conserverait chaque gouvernement de faire directement et indépendamment, par les moyens qui lui conviendraient le mieux, les achats qui lui seraient nécessaires. On peut toutefois prévoir des cas où les deux Gouvernements, ayant les mêmes besoins, auraient intérêt à passer des marchés communs.

Ladite Commission comprendrait : du côté français, des représentants des Ministères de la Guerre, de la Marine et des Finances, — du côté anglais, des délégués du War Office, de l'Amirauté et du Board of Trade.

En ce qui concerne les paiements à effectuer par le Gouvernement français pour ces achats éventuels, on propose de les régler au moyen d'un compte qui serait ouvert audit Gouvernement par la Banque d'Angleterre dans les conditions qui ont fait l'objet d'une entente particulière entre les délégués français du Ministère des Finances actuellement à Londres, et les délégués de la Trésorerie anglaise et le Gouverneur de la Banque d'Angleterre.

APPENDIX 2

ROYAL COMMISSION OF INQUIRY, DATED MARCH 31, 1915,
AS TO COMPENSATION IN RESPECT OF LOSS OR DAMAGE TO
PROPERTY OR BUSINESS IN THE UNITED KINGDOM OCCA-
SIONED BY EXERCISE OF RIGHTS AND DUTIES IN THE
DEFENCE OF THE REALM

George R. I.

George the Fifth, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, King, Defender of the Faith, to

Our trusty and well-beloved :

Henry Edward Duke, Esquire, one of Our Counsel learned in the Law ;

Sir James Thomas Woodhouse, Knight, and

Sir Matthew Gemmill Wallace, Knight,

Greeting !

Whereas We have deemed it expedient that a Commission should forthwith issue to inquire and determine, and to report what sums (in cases not otherwise provided for) ought in reason and fairness to be paid out of public funds to applicants, who (not being subjects of an enemy State) are resident or carrying on business in the United Kingdom, in respect of direct and substantial loss incurred and damage sustained by them by reason of interference with their property or business in the United Kingdom through the exercise by the Crown of its rights and duties in the defence of the Realm :

Now know ye that We, reposing great trust and confidence in your knowledge and ability, have authorized and appointed, and do by these Presents authorize and appoint you the said Henry Edward Duke (Chairman) ; Sir James Thomas Woodhouse ; and Sir Matthew Gemmill Wallace to be Our Commissioners for the purpose of the said inquiry.

And for the better effecting the purpose of this Our Commission, We do by these Presents give and grant unto you full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission ; and also to call for, have access to, and examine, all such books, documents, registers, and records as may afford you the fullest information on the subject, and to inquire of and concerning the premisses by all other lawful ways and means whatsoever.

And We do by these Presents authorize and empower you to visit and personally inspect such places as you may deem it expedient so to inspect for the more effectual carrying out of the purposes aforesaid.

And We do by these Presents will and ordain that this Our Commission

shall continue in full force and virtue and that you, Our said Commissioners, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment.

Provided that, should you deem it expedient, the powers and privileges hereinbefore conferred on you shall belong to, and may be exercised by, any one or more of you.

And Our will and pleasure is that you do, from time to time, report to the Lords Commissioners of Our Treasury, under your hands and seals, your opinion upon the matters herein submitted for your consideration.

Given at Our Court at Saint James's, the Thirty-first day of March, one thousand nine hundred and fifteen, in the fifth year of our Reign.

By His Majesty's Command.
R. McKENNA.

APPENDIX 3

FLAX AND FLAX SEED ACCOUNT

TRADING ACCOUNT FOR THE YEAR ENDING MARCH 31, 1917

	£	s.	d.
Purchases landed and requisitioned	1,723,494	19	0
Commission on purchases, audit fees, and general expenses at London, Dundee, Belfast, and Archangel	18,658	9	6
Balance being profit for the year	354,625	11	3

£2,096,778 19 9

WAR AND MARINE RISKS ACCOUNT

	£	s.	d.
Purchases lost by enemy action	7,000	0	0
Balance carried forward to next account	116,000	0	0
	£123,000	0	0

BALANCE SHEET, MARCH 31, 1917

LIABILITIES

	£	s.	d.	£	s.	d.
Cash from Army Funds :						
Excess of payments over receipts met temporarily from Vote of Credit as per Cash Appropriation Account	3,514,473	3	2			
Add cash in bank deducted, now shown <i>per contra</i>	107,758	12	2			
				3,622,231	15	4
Sundry creditors				59,874	7	1
War Risks Account balance				116,000	0	0
Profit as per Trading Account				354,625	11	3
				£4,152,731	13	8

	£	s.	d.	£	s.	d.
Sales, interest on bills, fees for transit facilities granted on private flax, and profit on freight, yarn and cloth	2,105,138	16	1			
<i>Deduct—</i>						
Provision included in sales for War and Marine risk	123,000	0	0			
				1,982,138	16	1
Stock :						
Flax and tow	107,512	18	8			
Flax seed	7,127	5	0			
				114,640	3	8
				£2,096,778	19	9

	£	s.	d.
Provision included in sales	123,000	0	0
	£123,000	0	0

ASSETS

	£	s.	d.
Cash in bank	107,758	12	2
Sundry debtors, including bills receivable and general average deposits	171,999	11	2
Stock :			
Flax and tow	107,512	18	8
Flax seed	7,127	5	0
	114,640	3	8
Advances from Public Funds against purchases in Russia for 1917 shipments	3,758,333	6	8
	£4,152,731	13	8

FLAX AND FLAX SEED ACCOUNT (*cont.*)

TRADING ACCOUNT FOR THE YEAR ENDING MARCH 31, 1918

	£	s.	d.	£	s.	d.
To Stock at March 31, 1917 :						
Flax and tow	107,512	18	8			
Flax seed	7,127	5	0			
				114,640	3	8
„ purchases :	£	s.	d.			
Remitted to Russia, 1916-17	3,758,333	6	8			
Remitted to Russia, 1917-18	5,151,554	17	8			
	8,909,888	4	4			
Payment to Ralo	8,771	0	0			
Estimated liability on 1917-18 shipments .	200,000	0	0			
	9,118,599	4	4			
Dundee purchases	401,573	5	11			
Dutch flax purchased	265,082	3	9			
Flax seed purchased	304,231	5	3			
	10,089,485	19	3			
Less—	£	s.	d.			
Losses to Marine and War Risk :						
Flax	996,948	0	0			
Flax seed	43,062	4	0			
	1,040,010	4	0			
				9,049,475	15	3
To Freight Account				753,133	7	3
„ landing charges, warehouse rent, &c.				43,443	13	10
„ commission on purchases, audit fees, and general expenses at London, Dundee, Belfast, and Russia, including estimated charge for services of War Office branches and other Government Departments				153,424	8	2
„ Interest on advances from Army Funds				191,752	18	9
				10,305,880	6	11
„ trading profit for year				936,207	14	2
				£11,242,088	1	1

MARINE AND WAR RISK ACCOUNT AS AT MARCH 31, 1918

	£	s.	d.	£	s.	d.
To flax on sunk steamers	996,948	0	0			
„ flax seed on sunk steamers	43,062	4	0			
				1,040,010	4	0
„ freight on sunk steamers :						
Flax, &c.	89,309	0	0			
Flax seed	3,449	16	6			
				92,758	16	6
				£1,132,769	0	6

	£	s.	d.	£	s.	d.
By flax and tow sold, including interest on bills	9,090,571	9	7			
„ flax seed sales	106,616	2	10			
				9,197,187	12	5
<i>Less—</i>						
Provision included in sales to cover Marine and War Risks :						
Flax	761,137	0	0			
Flax seed	2,891	0	0			
				764,028	0	0
				8,433,159	12	5
To stock as at March 31, 1918 :						
Russian flax and tow in United Kingdom .	2,354,119	15	0			
Dutch flax in United Kingdom and Holland	272,178	3	9			
Flax seed in United Kingdom and Holland	182,630	9	11			
				2,808,928	8	8

£11,242,088 1 1

	£	s.	d.	£	s.	d.
By balance at credit as at March 31, 1917 .				116,000	0	0
„ General Trading Account, being allowance of 13s. 1d. per ton on flax shipment sales .	761,137	0	0			
And 6 per cent. on cost of flax seed shipment sales .	2,891	0	0			
				764,028	0	0
By salvage sold .				23,633	10	1
By balance at debit as at March 31, 1918 .				229,107	10	5
				£1,132,769	0	6

FLAX AND FLAX SEED ACCOUNT (*cont.*)

BALANCE SHEET AS AT MARCH 31, 1918

	LIABILITIES		£	s.	d.	£	s.	d.
Cash from Army Funds :								
Balance at March 31, 1917 as per Cash Appropriation Account to that date			3,514,473	3	2			
<i>Deduct—</i>								
Excess of receipts over payments for year ending March 31, 1918			2,464,885	1	6			
			1,049,588	1	8			
Amounts in transit between Dundee and London, as at March 31, 1918			45,000	0	0			
						1,012,698	0	3
Reserve for interest on cash provided from Army Funds						258,959	8	9
Estimated charge for services of War Office branches and other Government Departments						56,099	7	6
Sundry creditors						1,208,073	6	5
Profit and Loss Account :			£	s.	d.			
Balance at credit as at March 31, 1917			354,625	11	3			
<i>Less—</i>								
Interest on advances from Army Funds to that date			67,196	10	0			
			287,429	1	3			
Profit for year to date			936,207	14	2			
						1,223,636	15	5
						£3,759,466	18	4

TRADING ACCOUNT FOR THE YEAR ENDING MARCH 31, 1919

	£	s.	d.	£	s.	d.
To stock as at March 31, 1918 :						
Russian flax and tow in United Kingdom	2,354,119	15	0			
Dutch flax in United Kingdom and Holland	272,178	3	9			
Flax seed in United Kingdom and Holland	182,630	9	11			
				2,808,928	8	8
To purchases :*						
Russian flax	1,977,822	3	7			
Estimated liability on 1918–19 shipments	800,000	0	0			
	2,777,822	3	7			
Flax purchases on spot	246,669	2	5			
Dutch flax purchased, including freight	268,480	18	7			
Flax seed purchased, including freight	530,288	19	0			
Egyptian and Australian flax, including freight	11,797	1	11			
	3,835,058	5	6			
<i>Less</i>						
Losses to Marine and War Risk—Egyptian (including freight)	2,462	5	10			
				3,832,595	19	8
Freight Account				239,574	5	8
To landing charges and warehouse rent, &c.				51,509	0	3
To commission on purchases, audit fees, and general expenses at London, Dundee, Belfast, and in Russia, including estimated charge for services of War Office branches and other Government Departments				54,235	9	5
To interest on advances from Army Funds				2,122	16	0
				6,988,965	19	8
To profit for year to date				1,236,235	3	8
				£8,225,201	3	4

FLAX AND FLAX SEED ACCOUNT

407

	ASSETS							
Stock :		£	s.	d.		£	s.	d.
Russian flax in United Kingdom		2,354,119	15	0				
Dutch flax in United Kingdom and Holland		272,178	3	9				
Flax seed in United Kingdom and Holland		182,630	9	11				
						2,808,928	8	8
Marine and War Risks Account						229,107	10	5
Balance at debit :								
Sundry debtors						713,321	0	8
Cash due by Clydesdale Bank, Ltd., Dundee and London						8,109	18	7

£3,759,466 18 4

By Russian flax and tow sold, including interest on bills	£	s.	d.	£	s.	d.
„ Dutch flax sales	4,102,978	18	4			
„ flax seed sales	392,635	0	9			
„ Australian and Egyptian flax sales	730,444	19	11			
	10,249	4	4			
				5,236,308	3	4

Less—

Provision included in sales to cover marine and war risks :

Flax	262,327	0	0
Flax seed	31,840	0	0

294,167 0 0

4,942,141 3 4

To stock as at March 31, 1919 :

Russian flax and tow in United Kingdom	3,022,108	15	9
Dutch flax in United Kingdom	180,800	19	3

£ s. d.

Flax seed in United Kingdom	56,160	5	0
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Flax seed in Ontario, Canada	23,990	0	0
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80,150 5 0

3,283,060 0 0

£8,225,201 3 4

FLAX AND FLAX SEED ACCOUNT (*cont.*)

MARINE AND WAR RISKS ACCOUNT AS AT MARCH 31, 1919

	£	s.	d.
To balance at debit as at March 31, 1918	229,107	10	5
„ Egyptian flax lost	2,462	5	10
	231,569	16	3
„ balance	69,146	15	2

£360,716 11 5

BALANCE SHEET AS AT MARCH 31, 1919

LIABILITIES

	£	s.	d.
Marine and War Risk Account	69,146	15	2
Reserve for interest on cash provided from Government Funds	261,082	4	9
Estimated charge for services of other Government Departments	77,332	2	3
Sundry creditors	2,085,607	6	8
Profit and Loss Account :			
Balance at credit as at March 31, 1918	1,223,636	15	5
Profit for year to date	1,236,235	3	8
	2,459,871	19	1

£4,953,040 8 11

	£	s.	d.	£	s.	d.
By General Trading Account, being allowance of 13s. 1d. per ton on flax shipment sales	262,327	0	0			
And 6 per cent. on cost of flax seed shipment sales	31,840	0	0			
				294,167	0	0
„ salvage sold	11,784	0	7			
<i>Less—</i>						
Salvage expenses	6,236	10	9			
				5,547	9	10
„ freight received on sunk hemp, private parcels				1,002	1	7
„ claim against owners, S.S. <i>Bors</i> , for flax seed sunk, S.S. <i>Amulet</i> , 1917-18 season, and loss debited to this account, £53,034 5s.						
Meantime estimated at no value						
				£300,716	11	5

ASSETS

	£	s.	d.	£	s.	d.
Stock :						
Russian flax in United Kingdom	3,022,108	15	9			
Dutch flax	180,800	19	3			
Flax seed in United Kingdom and Canada	80,150	5	0			
				3,283,060	0	0
Sundry debtors				590,256	4	10
Cash :						
Clydesdale Bank, Ltd., Dundee and London	3,039	14	11			
Dutilh & Co., Holland	1,217	12	3			
Canadian Board of Agriculture	30,197	5	4			
E. R. Wayland & Co.	30,472	16	8			
				64,927	9	2
Cash to Government Funds :						
Excess of receipts over payments to March 31, 1919	2,066,812	5	9			
Amounts in transit between Dundee and London as at March 31, 1919	17,500	0	0			
	2,084,312	5	9			
<i>Deduct—</i>						
Balance at March 31, 1918, as per Cash Appropriation Account to that date	1,004,588	1	8			
	1,079,724	4	1			
<i>Less—</i>						
Cash at bank per above	3,039	14	11			
Cash due by Dutilh & Co., Holland	1,217	12	3			
Canadian Board of Agriculture	30,197	5	4			
R. Wayland & Co., flax seed growing scheme	30,472	16	8			
				64,927	9	2
				1,014,796	14	11
				£4,953,040	8	11

APPENDIX 4

RAW JUTE ACCOUNT

TRADING ACCOUNT FOR PERIOD TO MARCH 31, 1917

	Bales	£	s.	d.
To jute bought and shipped from Calcutta on Government account, including freight to Dundee	201,786	903,528	17	2
„ jute requisitioned on spot or afloat unsold	15,077	109,334	4	1
„ commission on purchases and audit fees		19,502	12	5
„ profit for the year to date		33,597	7	2

216,863	£1,065,963	0	10
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MARINE AND WAR RISKS ACCOUNT

To purchases lost by enemy action	Nil
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BALANCE SHEET AS AT MARCH 31, 1917

	LIABILITIES		£	s.	d.	£	s.	d.
Cash from Army Funds :								
Excess of payments over receipts met temporarily from Vote of Credit as per Cash Appropriation Account			481,920	5	6			
<i>Deduct—</i>								
Advanced by Clydesdale Bank, shown separately below			8,430	9	2			
						473,489	16	4
Clydesdale Bank, Ltd., overdraft on Current Account						8,430	9	2
Sundry creditors						48,810	6	8
Marine and War Risks Account—balance						11,000	0	0
Profit as per Trading Account						33,597	7	2
						£575,327	19	4

RAW JUTE ACCOUNT

411

	Bales	£	s.	d.
By jute shipped from Calcutta and allocated to spinners and manufacturers in Dundee against Government orders	147,058	678,498	7	7
Less—				
Premiums charged to cover Marine and War Risks insurance		11,000	0	0
		667,498	7	7
By jute requisitioned on spot and sold for private trade	14,579	111,418	2	8
		778,916	10	3
By stock as at March 31, 1917 :				
Afloat to Dundee	283,089	4	2	54,728
Requisitioned jute in warehouse	3,957	6	5	498
		287,046	10	7
	216,863	£1,065,963	0	10

	£	s.	d.
By premiums included in sales as above	11,000	0	0

ASSETS

	£	s.	d.
Sundry debtors on open account	288,281	8	9
Stocks in warehouse and afloat	287,046	10	7

£575,327 19 4

RAW JUTE ACCOUNT (*cont.*)

TRADING ACCOUNT FOR YEAR ENDING MARCH 31, 1918

	Bales	£	s.	d.	£	s.	d.
To stock at March 31, 1917 :							
Afloat to Dundee	54,728	283,089	4	2			
Requisitioned jute in warehouse . .	498	3,957	6	5			
		287,046	10	7			
To jute bought and shipped from Calcutta on Government account including freight to Dundee . .	354,865	1,455,950	8	7			
„ jute requisitioned on spot or afloat unsold	257,337	2,007,186	18	1			
	667,428	3,750,183	17	3			
<i>Less—</i>							
Cargoes lost through enemy action, S.S. <i>Malakand</i> and <i>Clan Cameron</i>	32,740	160,971	7	9			
	634,688				3,589,212	9	6
To administration expenses, including charges for service of War Office branches and other Government Departments	—	—			12,945	14	2
„ amount due to Ministry of Shipping	—	—			15,065	0	0
„ interest on Army Funds	—	—			25,837	2	0
„ estimated liability on jute sold at market value, subject to rebate if requisitioned for Government orders	—	—			260,380	0	0
„ net profit for year	—	—			385,232	5	2
	634,688				£4,288,672	10	10

MARINE AND WAR RISKS ACCOUNT

March 31, 1918 :	£	s.	d.
To value of cargoes lost through enemy action, S.S. <i>Malakand</i> and <i>Clan Cameron</i>	160,971	7	9
To salvage claims on S.S. <i>Stockwell</i>	650	0	0
To balance	47,136	12	3
	£208,758	0	0

RAW JUTE ACCOUNT

413

	Bales	£	s.	d.	£	s.	d.
By jute sold to spinners and manufacturers in Dundee, subject to requisition for Government orders	332,163	2,185,171	0	9			
<i>Less—</i>							
Premiums charged to cover marine and war risks insurance . . .	—	197,758	0	0			
		1,987,413	0	9			
By requisitioned jute sales . . .	252,239	2,036,137	2	11			
					4,023,550	3	8
By stocks as at March 31, 1918 :							
Afloat and on quay . . .	28,273	145,951	7	2			
Warehoused in United Kingdom . .	16,417	70,671	0	0			
Requisitioned jute in warehouse . .	5,596	48,500	0	0			
					265,122	7	2

634,688

£4,288,672 10 10

March 31, 1917 :	£	s.	d.
By balance	11,000	0	0
March 31, 1918 : by premiums collected for year	197,758	0	0

£208,758 0 0

RAW JUTE ACCOUNT (*cont.*)

BALANCE SHEET AS AT MARCH 31, 1918

		LIABILITIES					
		£	s.	d.	£	s.	d.
Sundry creditors :							
On Open Account		51,398	6	3			
Sales Adjustment Account		132,456	0	0			
					183,854	6	3
Marine and War Risks Account					47,136	12	3
Reserve for interest on cash provided on Army Funds					32,226	2	0
Estimated charge for service of War Office branches and other Government Departments					25,065	0	0
Profit and Loss Account :		£	s.	d.			
Sum at credit at March 31, 1917		33,597	7	2			
<i>Less—</i>							
Interest on advances from Army Funds to that date		6,389	0	0			
		27,208	7	2			
Profit for year to date		385,232	5	2	412,440	12	4

£700,722 12 10

ASSETS

	£	s.	d.	£	s.	d.
Due by Clydesdale Bank, Ltd., London	23,690	6	1			
In hand	13	7	7			
				23,704	3	8
Sundry debtors: On Open Account				34,164	5	9
Note.—Jute arrived at London at March 31, 1918, to the value of £33,765 3s. 7d. has been invoiced to buyers, but these sales are subject to safe arrival at Dundee.						
Stocks of Jute warehoused in United Kingdom and afloat				265,122	7	2
Cash to Army Funds:	£	s.	d.			
Excess of receipts over payments for year ending March 31, 1918	846,659	5	4			
<i>Deduct—</i>						
Balance at March 31, 1917, as per Appropriation Account to that date	481,920	5	6			
				364,738	19	10
Amounts in transit between Dundee and London at March 31, 1918	36,697	0	1			
				401,435	19	11
<i>Less—</i>						
Cash at bank and in hand as above	23,704	3	8			
				377,731	16	3
				£700,722	12	10

RAW JUTE ACCOUNT (*cont.*)

TRADING ACCOUNT FOR THE YEAR ENDING MARCH 31, 1919

	Bales	£	s.	d.	£	s.	d.
To stock as at March 31, 1918 :							
Afloat and on quay	28,273	146,951	7	2			
Warehoused in United Kingdom . .	16,417	70,671	0	0			
Requisitioned jute in warehouse . .	5,596	48,500	0	0			
		265,122	7	2			
To jute bought and shipped from Calcutta on Government Account, including freight to Dundee, and purchases for Allied Governments	928,548	5,266,456	4	1			
.. jute requisitioned on spot or afloat unsold	7,297	59,098	16	1			
	986,131	5,590,677	7	4			
Less—							
.. jute destroyed in transit transferred to Marine and War Risks Account, including estimated sum for loss on S.S. <i>War Lance</i> , £60,000	7,215	95,472	0	0			
	978,916	—			5,495,205	7	4
To Administration expenses, including estimated charge for services of Office branches and other Government Departments	—	—			12,305	11	3
.. amount due to Ministry of Shipping	—	—			47,336	0	0
.. estimated liability on jute sold at market value, subject to £10 per ton rebate if requisitioned for Government orders	—	—			651,150	0	0
.. Sales Adjustment Account, charge in respect of adjustment of price in final settlement of Government jute	—	—			136,609	14	2
.. net profit for year	—	—			259,952	3	10
	978,916	—			£6,602,558	16	7

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RAW JUTE ACCOUNT (*cont.*)

MARINE AND WAR RISKS ACCOUNT

March 31, 1919:		£	s.	d.
To value of jute destroyed		95,472	0	0
„ balance		318,401	0	0
		£413,873	0	0

BALANCE SHEET AS AT MARCH 31, 1919

	LIABILITIES				
		£	s.	d.	£ s. d.
Sundry creditors:					
On Open Account		688,979	0	10	
Sales Adjustment Account		745,126	4	2	
					1,434,105 5 0
Marine and War Risks Account					318,401 0 0
Reserve for interest on cash provided on Army Funds					9,511 2 0
Estimated charge for services of War Office branches and other Government Departments					82,401 0 0
Profit and Loss Account:					
Sum at credit at March 31, 1918		412,440	12	4	
Profit for year to date		259,952	3	10	
					672,392 16 2
					£2,516,811 3 2

March 31, 1918 :	£	s.	d.
By balance	47,136	12	3
March 31, 1919 : by premiums collected for year	338,522	7	6
By salvage sales	28,214	0	3
	£413,873	0	0

ASSETS

Cash :	£	s.	d.	£	s.	d.
Due by Clydesdale Bank, Ltd., London	110,751	4	8			
In hand	41	12	3			
				110,792	16	11
Sundry debtors :						
On Open Account				55,093	14	5
Italian Government				275,936	13	4
Stocks of jute warehoused in United Kingdom and afloat				1,710,704	9	5
Cash to Army Funds :	£	s.	d.			
Balance at debit at March 31, 1918	401,435	19	11			
Excess of receipts over payments for year ending March 31, 1919	65,884	13	0			
				467,320	12	11
Amounts in transit between Dundee and London as at March 31, 1919	7,755	13	1			
				475,076	6	0
Less—						
Cash at bank and in hand as above	110,792	16	11			
				364,283	9	1
				£2,516,811	3	2

APPENDIX 5

MANILA HEMP ACCOUNT

TRADING ACCOUNT, JUNE 1, 1917 TO MARCH 31, 1918

	£	s.	d.
To purchases, including freight	2,723,166	19	4
„ sundry charges and expenses	686	13	2
„ interest on advances from Army Funds (see contra)	—		
„ balance as per Balance Sheet being net profit for the period	710,993	19	3
	£3,434,847	11	9

MARINE AND WAR RISKS ACCOUNT

March 31, 1918 :	£	s.	d.
To cost of cargo lost by enemy action	222,906	14	10
	£222,906	14	10

BALANCE SHEET, MARCH 31, 1918

To cash from Army Funds :	£	s.	d.
„ excess of payments over receipts met temporarily from Vote of Credit	428,414	5	7
„ sundry creditors	260,748	2	6
„ estimated cost of services rendered by other Public Departments	100	0	0
„ Trading Account :			
Estimated profit as per account annexed	710,993	19	3
	£1,400,256	7	4

TRADING ACCOUNT FOR THE YEAR ENDING MARCH 31, 1919

	Bales	£	s.	d.
To stock, April 1, 1918	129,205	1,251,788	4	1
„ purchases	436,834	3,310,439	9	6
„ sundry charges and expenses including allowance for services rendered by other Government Departments	—	2,177	17	11
„ interest on account with Army Funds, estimated	—	32,700	0	0
	566,039	£4,597,105	11	6

	£	s.	d.
By sales after deducting provision for War and Marine risk, and agents' commission	2,175,901	7	8
„ stock landed and afloat	1,251,788	4	1
„ interest on account with Army Funds estimated	7,158	0	0
	<u>£3,434,847</u>	<u>11</u>	<u>9</u>

March 31, 1918 :	£	s.	d.
By provision included in sales	194,430	0	0
„ balance carried forward to next account.	28,476	14	10
	<u>£222,906</u>	<u>14</u>	<u>10</u>

	£	s.	d.
By sundry debtors	112,833	8	5
„ stock in the United Kingdom and afloat	1,251,788	4	1
„ Marine and War Risk Account	28,476	14	10
„ interest on account with Army Funds, estimated	7,158	0	0
	<u>£1,400,256</u>	<u>7</u>	<u>4</u>

	Bales	£	s.	d.
By sales after deducting freight, agents' commission, and provision for Marine and War risk	408,102	3,337,922	16	2
By stock in the United Kingdom and afloat at March 31, 1919	157,937	1,028,438	12	6
By balance as per Balance Sheet, being loss for the year	—	230,744	2	10
	<u>566,039</u>	<u>£4,597,105</u>	<u>11</u>	<u>6</u>

MANILA HEMP ACCOUNT (*cont.*)

MARINE AND WAR RISKS ACCOUNT

April 1, 1918 :	£	s.	d.
To balance at this date	28,476	14	10
March 31, 1919 :			
To losses by fire and marine risks during the year to date . . .	4,857	4	10
To balance at this date	242,879	0	4
	£276,213	0	0

BALANCE SHEET, MARCH 31, 1919

To cash from Army Funds :	£	s.	d.	£	s.	d.
Excess of payments over Receipts met temporarily from Votes of Credit :						
Excess of payments over Receipts for the year ending March 31, 1918	428,318	0	0			
<i>Deduct—</i>						
Balance as per Appropriation Account for the year ending at this date	280,241	19	8	148,076	6	4
To sundry creditors				187,801	11	2
„ Marine and War Risk Account, balance as per account annexed				242,879	0	4
„ estimated amount due to other Government Departments for services rendered				300	0	0
„ interest on Army Funds, estimated				25,542	0	0
„ Trading Account :	£	s.	d.			
Balance at March 31, 1918	714,341	7	10			
<i>Less—</i>						
Loss for the year to date	230,744	2	10	483,597	5	0
				£1,088,196	2	10

MANILA HEMP ACCOUNT

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March 31, 1919 :

By provision included in selling prices during the year to date .	£	s.	d.
	276,213	0	0

£276,213 0 0

By sundry debtors	£	s.	d.
	59,757	10	4
By stock in the United Kingdom and afloat	1,028,438	12	6

£1,088,196 2 10

APPENDIX 6

BOOT AND LEATHER COMMITTEES

Central Committee

TERMS of Reference.—To advise the Department as to the measures necessary for the production and conservation of leather for military purposes with due regard to consideration of exchange, transport, and labour.

Government Representatives.—Mr. E. F. Wise (Chairman), War Office ; Mr. E. Penton (Vice-Chairman), War Office ; Mr. H. R. Corner, War Office ; Mr. T. J. Cash, War Office ; Mr. A. McDougall, War Office ; Mr. J. D. Withinshaw, War Office ; Mr. J. G. Leslie, War Office ; Mr. S. B. Leigh-Taylor, War Office ; Mr. E. C. Snow, War Office ; Mr. H. Birkhead, War Office ; Mr. C. Burrage, Ministry of Munitions ; Mr. C. H. Grimshaw, Board of Trade ; Col. J. B. Kerslake, Department of Import Restrictions ; Mr. J. J. Scott (Secretary), Mr. F. J. Marquis (Assistant-Secretary).

Representatives of Employers.—Mr. Harry Cockhill, Chairman of the Federation of Leather Belting Manufacturers of the United Kingdom ; Mr. H. Percy Densham, President of the United Tanners Federation of Great Britain and Ireland ; Mr. Owen Parker, President of the Incorporated Federated Association of Boot and Shoe Manufacturers of Great Britain and Ireland ; Mr. W. A. Posnett, Managing Director, Messrs. Hepburn, Gale & Ross, Ltd.

Representatives of Labour.—Mr. W. Lilley, Secretary of the United Society of Journeymen Curriers, Tablehands, and Machine Operators of Great Britain and Ireland ; Mr. E. L. Poulton, Secretary of the National Union of Boot and Shoe Operatives ; Mr. George Power, Secretary of the Midland Leather Trades Federation ; Mr. R. Siddle, Secretary of the Amalgamated Society of Leather Workers.

Dressing Leather Prices Committee

Terms of Reference.—To advise the Department as to prices for various tannages of dressing leather.

List of Members.—Mr. E. Penton (Chairman), Mr. S. Barrow, Mr. S. F. Conolly, Mr. H. P. Densham, Mr. H. J. Mason, Mr. R. H. Posnett, Mr. Leslie Ward.

Boot Prices Committee

Terms of Reference.—To advise the Department as to the prices to be paid to various manufacturers of Army Boots.

List of Members.—Mr. E. Penton (Chairman), Mr. Owen Parker, Mr. A. E. Marlow, Mr. C. Howell, Mr. Evans, Mr. G. B. Britton.

Sole Leather Prices Committee

Terms of Reference.—To advise the Department as to the prices to be paid for various tannages of sole leather.

List of Members.—Mr. E. Penton (Chairman), Mr. H. P. Densham, Mr. A. Appleton, Mr. E. Lewis, Mr. H. Crockett, Mr. W. Sloane-Walker, Mr. J. Weir.

The Limitation of Prices Sub-Committee

Terms of Reference.—To consider and report on the limitation of prices of leather manufactured for other than Government purposes from hides the price of which is controlled.

List of Members.—Mr. Densham, Mr. Bruce, Mr. Owen Parker, Mr. Poulton, Mr. Cockhill, together with representatives of the War Office and the Board of Trade.

Production of Harness, Accoutrement, and Belting Sub-Committee

Terms of Reference.—To advise the Department as to the measures necessary to secure adequate production of harness, accoutrements, and belting, with due regard to questions of Transport and Exchange.

Mr. H. R. Corner (Chairman), War Office; Mr. W. A. Posnett, Managing Director, Messrs. Hepburn, Gale & Ross, Ltd.; Mr. Harry Cockhill, Chairman of the Federation of Leather Belting Manufacturers of the United Kingdom; Mr. H. J. Mason, Messrs. D. Mason & Sons, Ltd.; Mr. George Fower, Secretary of the Midland Leather Trades Federation; Mr. J. T. Morrison, Secretary of the London Saddle and Harness Makers' Trade Protection Society; Mr. W. Lilley, Secretary of the United Society of Journeymen Curriers, Tablehands, and Machine Operators of Great Britain and Ireland.

The Production of Boots Sub-Committee

Terms of Reference.—To advise the Department as to the measures necessary to secure the production of adequate supplies of boots.

Mr. E. Penton (Chairman), War Office; Mr. Owen Parker, President of the Incorporated Federated Associations of Boot and Shoe Manufacturers of Great Britain and Ireland; Mr. A. E. Marlow, St. James's Works; Mr. Percy Steadman, Derham Bros., Ltd.; Mr. T. F. Richards, President of the National Union of Boot and Shoe Operatives; Mr. E. L. Poulton, Secretary of the National Union of Boot and Shoe Operatives; Mr. John Buckle, National Union of Boot and Shoe Operatives.

The Regulation of the Imports of Hides and Skins and the Distribution of British Hides Sub-Committee

Terms of Reference.—To advise the Department:

- (1) On the adequacy of the existing or anticipated supplies of hides.
- (2) On the importation of hides having regard to financial and transport difficulties.

(3) On the possibility of co-operating with the Allied Governments in purchasing hides.

(4) On the regulation of the use of British and imported hides.

Mr. E. Penton (Chairman), War Office ; Mr. H. Percy Densham (Vice-Chairman), President of the United Tanners Federation of Great Britain and Ireland ; Mr. C. R. Scriven (Representing Importers), Messrs. Scriven Bros. & Co. ; Mr. W. Coggan (Representing Distributors), London Butchers' Hide Co. ; Mr. S. Millar (Representing Tanners of Hides), Millars, Ltd. ; Mr. J. A. Bruce (Representing Tanners of Skins), Harold Nickols, Ltd. ; Mr. R. Siddle (Representing Labour), Secretary of the Amalgamated Society of Leather Workers.

Sub-Committee on Distribution of British Market Hides

Mr. E. Penton (Chairman), War Office ; Mr. H. Percy Densham (Vice-Chairman), President of the United Tanners Federation of Great Britain and Ireland ; Mr. W. Coggan (Representing Distributors), London Butchers' Hide Co. ; Mr. S. Millar (Representing Tanners of Hides), Millars, Ltd. ; Mr. J. A. Bruce (Representing Tanners of Skins), Harold Nickols, Ltd.

The Production and Import of Materials required for the Production and Dressing of Leather Sub-Committee

Terms of Reference.—To advise the Department as to the steps which are necessary to secure the production and import of such materials as are required for the production and dressing of leather required directly or indirectly for military purposes.

Mr. S. B. Leigh-Taylor (Chairman), War Office ; Mr. H. Percy Densham, President of the United Tanners Federation of Great Britain and Ireland ; Mr. T. W. Badgery (Representing Tanners of Skins), Ward & Company (Worcester) ; Mr. J. G. Withinshaw (Representing Tanners of Hides), The Penketh Tanning Co., Ltd. ; Mr. E. E. Hodgkins (Representing Curriers), Hepburn, Gale & Ross, Ltd. ; Mr. W. Aitken (Representing Importers yet to be appointed).

The Indian Kips and East African Hides Sub-Committee

Terms of Reference.—To advise the Department as to the steps necessary to secure that supplies of Upper Leather are available, with special reference to the use as raw material of Indian and East African Hides.

Mr. E. Penton (Chairman), War Office ; Mr. H. Percy Densham, President of the United Tanners Federation of Great Britain and Ireland ; Mr. W. L. Ingle, W. L. Ingle, Ltd. ; Mr. W. Lilley, Secretary of the United Society of Journeymen Curriers, Tablehands, and Machine Operatives of Great Britain and Ireland ; Mr. R. H. Posnett, Highfield Tanning Co., Ltd.

Chairmen of Local Committees advising on Boot Prices

Northampton County.—(a) Mr. Owen Parker, President of the Incorporated Federated Associations of Boot and Shoe Manufacturers of Great Britain and Ireland; (b) Rushden, Mr. X. W. Horrell; (c) Kettering, Mr. A. H. Bryan, Nelson Works.

Northampton Town.—Mr. A. E. Marlow, St. James's Works, Northampton.

Leicester Town.—Mr. W. Evans, Ashleigh Shoe Works, Leicester.

Leicester County.—Mr. W. Evans, Ashleigh Shoe Works, Leicester.

Leeds.—Mr. John Gray, Elmwood Boot Factory, Leeds.

Bristol and Kingswood.—Mr. P. Steadman, Messrs. Derham & Co., Bristol.

Scotland.—Mr. A. L. Scott, Messrs. Scott & Sons, Glasgow.

Chesham.—Mr. G. Barnes, Britannia Works, Chesham.

London.—Mr. George Pocock.

APPENDIX 7

BRITISH WOOL AREAS

Area 1. Devon, Cornwall, and Sussex, with Head-quarters at Exeter. This Area includes a large wool-producing country, the annual clip amounting to nearly ten million lb. or one-sixth of the total clip of England and Wales. The greater part of the wool is of strong, coarse quality suitable for combing into tops known as 32's to 44's prepared. The average weight per fleece is over ten lb. Most of the wool is bought by six local firms who are accustomed to comb, spin, and weave it themselves and sell the finished article.

Area 2. Dorset, Hants, Wilts, and Berkshire, with Head-quarters at Salisbury. The amount of wool grown in this Area is a little over three million lb., the greater part consisting of fine short wool of 50's to 58's carded quality, obtained from the Dorset Horn and Dorset and Hampshire Down breeds. This Area differs from others in the prevalence of wool auctions as the most popular method of sale. The flocks are large, in one instance amounting to 15,000 head.

Area 3. Shropshire, Staffordshire, and Cheshire, with Head-quarters at Shrewsbury. The bulk of wool in this Area is of the same quality as the foregoing, but the total only amounts to two and a quarter million lb.

Area 4. Bucks, Northants, Leicester, Huntingdon, and Rutland, with Head-quarters at Bedford. The total in this Area amounts to three and a half million, half of which is short wool of the Down variety and half long wool obtained from the Leicester breed, which is suitable for 32's to 48's prepared.

Area 5. The Counties of Gloucester, Oxford, Warwick, Worcester, and

Hereford, with Head-quarters at Worcester. This Area produces four and a half million lb. of wool, two-thirds of which is of the fine short wool variety grown on the Oxford and other Down breeds.

Area 6. Sussex, Surrey, Kent, and Middlesex, with Head-quarters at Tonbridge. Five million lb. of wool are grown in this area, the qualities being fairly evenly divided between long wools (32's to 48's prepared) derived especially from the Romney Marsh breed in Kent, and short wools (44's to 58's carded) from the Sussex Horn and Kent Down breeds.

Area 7. Essex, Norfolk, Suffolk, and Cambridgeshire, with Head-quarters at Ipswich. Total clip three million lb., the bulk of which is short wool obtained from sheep of the Eastern Counties Down breed. This Area contained a farmers' Co-operative Society which had made some progress in organizing co-operative sale and 'casing' of its members' wool.

Area 8. Was abolished in 1917 and was included in Area 10.

Area 9. Cumberland, Westmorland, and Lancashire, with Head-quarters at Kendal. This Area produced three and a quarter million lb., half of which was of the Blackfaced variety, a coarse wool used principally for carpets and blankets, and half long wool from the Border Leicester and Cheviot breeds.

Area 10. Yorkshire, Nottingham, Derbyshire, and Lincolnshire, with Head-quarters at Bradford. This Area, after the absorption of the original Area 8, was the largest wool-producing district in England, the total clip amounting to thirteen and a half million lb. There is a large variety of qualities; coarse wools such as Blackfaced and Lonk account for a million and a half lb.; over ten million lb. are long combing wools, the bulk of which comes from the long-woolled heavy fleeces of the Lincoln breed; and over a million lb. are fine short wools of miscellaneous breeds.

Area 11. Durham and Northumberland, with Head-quarters at Newcastle. This area produced only two and a half million lb., the greater part being Blackfaced, Border Leicester, and Cheviot.

Area 12. North Wales. Head-quarters at Newtown. Total clip three and a half million lb.

Area 13. South Wales. Head-quarters at Brecon. Total clip two million lb.

In these Areas the bulk of the wool is of a special variety obtained from the small Welsh mountain sheep; the fleeces only weigh about two lb. or less than one-third of the Lincoln and Devon breeds.

In addition to the above Areas in England and Wales, Scotland and Ireland were separate Areas with Head-quarters in Edinburgh and Dublin respectively. Scotland produces about twenty million lb. of wool, two-thirds of which is Blackfaced, and the bulk of the remainder, medium short wool grown on Cheviot sheep. In Ireland the total of thirteen million lb. is about equally divided between medium long (36's to 44's prepared) and medium short wools (44's to 50's carded).

APPENDIX 8

MEMORANDUM ON CONTROL OF MEAT SUPPLIES

(June 6, 1917)

1. *Objects of State Control*

THE objects to be attained by State regulation of meat supplies appear to be :

- (1) The reduction of prices and prevention of artificial inflation.
- (2) Organization of the channels of supply and distribution to prevent local shortages and ensure equitable distribution.
- (3) Regulation of the rate of slaughtering for immediate consumption and for building up a reserve in accordance with a definite policy in relation to the food supply generally.
- (4) The protection of milch and breeding stock from slaughter.

2. *Outlines of Scheme*

The proposed scheme of control is based on the experience gained in the Government purchase of wool and control of the supply and distribution of hides. Executive Officers would be appointed in each county to supervise the sending of cattle to the market and the distribution of cattle at fixed prices to authorized butchers and salesmen. County butchers in villages and small towns would be licensed by the local authority and would be under the control of a Distribution Officer in each town. Retail Butchers would buy at fixed prices and would be required to sell at maximum prices allowing a reasonable margin of profit.

The whole organization and control would be under the direction of a central Statistical Office which would be responsible for regulating the channels of supply and fixing the quota of cattle to be supplied from each county.

3. *Organization of Supply*

The Central Meat Office would appoint in each County an Executive Officer with considerable local knowledge and experience in the cattle trade. He would correspond roughly to the District Executive Officers under the Wool Scheme, who are responsible for controlling the purchase of wool from farmers by authorized wool merchants. His duties would be :

- (a) To keep records of the number of cattle and sheep on each farm and to know the quantity available for slaughter from time to time.
- (b) To secure that the quota for his County, determined by the Central Meat Office, comes forward for slaughter each week. He would have powers of requisitioning to be held in reserve in case the supplies coming forward were insufficient.

- (c) To supervise the dispatch of cattle to markets outside his Area in accordance with the instructions of the Central Meat Office.
- (d) To license country butchers to buy, where necessary, direct from the farmers in the neighbourhood.
- (e) To control the distribution of beasts at fixed prices in the usual cattle markets by authorized auctioneers or other authority.

This Officer should derive his executive power from the Central Meat Office and should be advised by a small committee composed of agriculturists, cattle-dealers, and butchers. He would require a small staff to keep records of the number of cattle on each farm, and should have the power to call for returns and to enter upon farms for the purpose of inspection.

It would be the duty of the County Executive Officer to prevent the slaughter of milch cows and breeding stock, and to see that the other requirements of the Central Authority with regard to the selection of cattle for slaughter were carried out.

He would supervise the cattle markets in his Area and would secure that the beasts were sold according to the fixed schedule of prices to authorized buyers in such a way that the existing channels of distribution were maintained as far as possible. Distribution at the cattle markets would follow the lines of the auctions at fixed prices adopted in the case of wool and hides (see Appendix). The buyers present would buy in the quantities which they were authorized to buy, and the auctioneer or other officer superintending the market would arrange for an equitable distribution of the available supplies among the buyers present.

If the quantities coming forward to the cattle markets should exceed the amount required at any time, the Executive Officer would buy on behalf of the Central Meat Office either for cold storage or for dispatch elsewhere, but he would be responsible for seeing that the rate of slaughter laid down for his county was as far as possible observed.

4. Organization of Distribution

The problem of distribution is to secure that the quantity of meat allotted by the Central Meat Office for each Area is distributed evenly among the existing retail butchers, in accordance with the needs of the population. Where the Local Authority was in a position to take control of distribution, a Distribution Officer would be appointed by the Local Authority. The Local Authority and the Distribution Officer would derive executive power from the Central Meat Office. All retail butchers would be required to register with the Local Authority and give particulars as to their usual turnover and their normal channels of supply. Where, as in London, they normally obtain their supplies through the wholesale butchers or meat salesmen, they would be affiliated to the wholesaler and obtain their supplies through him. In order to prevent fluctuations in

demand, from retail butchers, the Local Authority might be given power to introduce a system of registration of customers with the retail butchers or to require orders to be placed a week or more in advance. Having fixed the quota which each retail butcher or wholesale meat salesman may buy each week, the Distribution Officer will be responsible for seeing that the quota allotted to them was forthcoming. He would at once report any deficiency in the supplies coming forward in the market to the County Executive Officer, and if any temporary shortage cannot be made up from his normal source of supply he should indent on the Central Meat Office for emergency supplies to be sent from other areas or from cold storage.

It would be open to local authorities to take what steps they thought fit to expedite and improve distribution, whether by opening municipal shops, combining existing butchers for the purpose, organizing slaughtering, or otherwise. Further, it should be within the power of the Local Authority to adjust local retail prices so as to give the benefit of economies that might be effected in this way to the consumer.

In dealing with the Metropolitan area it might be desirable, in view of the complication of local government and the magnitude of the problem, to set up a separate office which would purchase the whole of the supplies, employing wholesale butchers and meat salesmen as authorized dealers on a commission basis. If this were done it might be found desirable to sell meat below cost price in the East End of London and to make up the difference by increasing the price of the better qualities of meat sold in the West End.

5. *Price*

In order to obtain any substantial reduction in the price of meat it would be essential to fix the price of live cattle to the farmer. In this connexion it might be pointed out that the price of hides fixed by the War Office is 40 per cent. above pre-war prices and the price of wool is now 50 per cent. above pre-war prices. The present prices of meat and cattle show rises far in excess of these, and there is no doubt that substantial reductions in the price of cattle might be made without inflicting any hardship on the majority of farmers. The price might be based on corresponding prices a year or two years ago with some allowance for increased costs, but in this case some provision would have to be made for cases where farmers have bought cattle in the last few weeks. It would not be unreasonable to throw on the farmer in these cases the onus of proving hardship, following the same procedure as has been adopted in the case of extra allowance to the families of middle-class recruits who have been called up and on whose families the usual rate of Army pay inflicts hardships. The alternative is to allow the hard cases to determine the price which the whole population has to pay for its meat, and this cannot be defended.

It is of great importance that the scheme should start off with the approval of the industrial population and the butchers, and this would be

secured by an immediate and drastic reduction in prices. A drastic reduction in price would not, as in other commodities, restrict supply. By making it unprofitable to the farmer to continue fattening his existing stock, it might even increase the available supply during the coming months, when it is of the utmost importance that farmers should put more land under the plough. At the same time, a low price of cattle would discourage slaughter of milch cows and thus help to protect the milk supply. If the effect of reducing prices were to encourage slaughter, it might be possible to accumulate a reserve by increasing cold storage facilities throughout the country. From the point of view of the food supply as a whole a reserve of meat would be more economical than a reserve of living cattle.

It is suggested that the price for the farmer should be fixed on the live weight. In the absence of a weighing machine in the controlled cattle market, an independent arbiter would be called in where the buyer and farmer disagreed as to the valuation.

It is a matter for consideration whether the price should vary for different breeds of cattle. It might in any case be desirable to discourage the fattening of prime beasts by fixing a maximum price for all beasts over a certain weight.

In order to get meat forward as rapidly as possible, during the months in which grain is short, and to prevent any local shortages during the inauguration of the scheme of control, it might be desirable to diminish prices step by step during the next six months.

The price to the farmer should be based on the assumption that the beast is delivered to the nearest market.

The wholesale meat price with allowances for the cost* of cartage, transport, warehousing, slaughter, and for the probable value of the offals should be fixed so as to leave a reasonable profit to the salesman, and for this purpose it might be necessary to fix different prices for London, for large towns, and for country places.

Differences in the cost of transport might be met by fixing a flat price for railway freight above a certain distance based on average costs.

The corresponding retail prices should also be fixed. These would have to be independent of the breed of the animal since it would otherwise not be possible to inspect adequately. By opening municipal shops or employing butchers as agents on commission, retail prices for the cheaper joints might be fixed lower in proportion than those for the better cuts. There is no reason why the retail prices should be the same in different areas. The London price need not dictate in a country town or vice versa. Provided the prices of the beasts are fixed under the supervision of the Central Meat Office, the local authority or the local distribution office should adjust a standard scale of retail prices to the circumstances of the particular area.

Determination of the relation between the wholesale price and the

retail price is a matter for statistical examination of pre-war prices. They should be fixed in such a way as to allow a reasonable profit based on pre-war conditions adjusted to cover any increased expenses due to the war.

6. *Functions of the Central Meat Office*

The Central Meat Office would be divided into five main sections :

- (1) Executive Control.
- (2) Statistical Section.
- (3) Transport Section.
- (4) Storage Section.
- (5) Imported Meat Section.

The Executive Control would appoint officers, lay down detailed rules for their working, and be responsible generally for the organization of the scheme, utilizing the information supplied by the Statistical Section and the local officers.

The Statistical Section would, with the assistance of the local officers, determine :

- (1) The number of cattle approximately in each area.
- (2) The number of cattle which may be slaughtered month by month,
(a) for the whole country, (b) for each area.
- (3) The quantity allotted for consumption locally in each county area and in the centres of population. This should in general be based on the adult population.
- (4) It should also correlate the supplies coming forward with the demands and should keep records of movement of cattle with a view to securing that transport is reduced to a minimum.

The Statistical Section is essential to the success of the scheme and should be strongly manned. It should centralize all the information available both on production and on consumption, and it should be in a position to indicate to local officers where they should send their surplus supplies and to distribution officers where they can obtain their supplies. The work would be comparable to that which is already being done with a much smaller problem in respect of hides.

The Transport Section would deal with (1) adjustment of railway charges, (2) general transport difficulties.

It would be necessary to have a really competent railway man in charge of this section. It would be the duty of the Transport Section, with the assistance of the Statistical Section, to bring the actual transport to a minimum.

The Storage Section would be responsible for the maintenance of reserves, for the increase of cold-storage accommodation, &c.

The Imported Meat Section would take over the existing functions of the War Office, the Board of Trade, and other Departments in connexion with importing meat.

7. *Advantages of scheme of control*

The experience gained in the administration of the Wool Purchase Scheme and the control of domestic hides proves that the most practicable method of State regulation is to make use wherever possible of the existing trade channels of supply and distribution, and to standardize these channels in such a way that every farmer and authorized dealer knows at once exactly where he is to send his produce and from whom he is to purchase it. Every trader is then recognized as performing a service of national importance, with the knowledge that his authority to deal may be cancelled if he fails to carry out the instructions or evades the regulations imposed.

Such experience as we have had in the control of commodities and a fairly close analysis of the German experience shows clearly the futility of half measures. It is not enough to fix prices and to leave supplies and distribution to take care of themselves. Either supplies are not forthcoming, or the industrial districts fail to get their share, or supplies come forward irregularly and serious waste occurs.

Further, it has become clear that it is much easier, more economical, and more effective to control the whole supply than to control a portion. This has undoubtedly been the case with wool, where the Department at first took charge of only one-sixth, and it has been the case with most of the German foodstuffs.

The amount of staff required for exercising the control would be negligible compared with the total number of traders and butchers already engaged in the meat trade. The Executive Officers and their assistants would largely be drawn from public-spirited men already engaged in the trade, and as many officers would probably give their services in an honorary capacity, the expense should not be considerable. Under the Wool Purchase Scheme, the administrative expenses are less than 0·5 per cent., whereas the gross profits of private merchants in normal times amounted to 7½–10 per cent. The additional cost of administrative control has been more than offset by the reduction in the profits obtained by merchants and middlemen.

E. F. WISE.

(APPENDIX)

I. *Memorandum on the Scheme for the Allocation of British Hides*

(1) British hides are used for the production of (a) saddlery, harness, accoutrement, &c., (b) sole leather, (c) upper leather, (d) belting leather, (e) textile leathers, and (f) other mechanical leathers. In the past tanners have obtained their supplies by arrangements among themselves, but the heavy demands for native hides for purpose (a) and the desirability of satisfying these demands from the leather of particular tanners has made it necessary to allocate the 50,000 hides, which are available weekly, in definite proportions to the above objects. Further, it is necessary to

allocate the hides ear-marked for a particular purpose among the tanners who are best able to tan them.

(2) The actual number and varieties of the hides which each tanner is to obtain was settled in consultation with the British Market Hide Committee, and it was found that the proposed new distribution of hides among tanners differed considerably from that at present existing. Not only are certain tanners to receive more or fewer hides than they do at present, but in very many cases they are now to receive a different variety of hide (e.g. a cow hide in place of ox) of a different weight (e.g. under 50 lb. in place of 80–9 lb.). In order to effect the re-distribution accordingly a good deal of statistical analysis was necessary.

(3) The organization of the hide industry is, in outline, as follows :

(a) There are about 100 registered hide markets scattered over the country, which prepare the hides for sale in accordance with rules drawn up before the war in consultation with tanners. These markets obtain the hides by collection from the butchers, farmers, and slaughter-houses in their district, or from a dealer who collects and sells to them.

(b) There are about 70 hide factors who purchase the hides from these markets. In some cases one factor takes the whole production of a particular market and no other, but in most cases many factors purchase each in a number of markets. Factors also occasionally purchase from the dealer referred to in (a).

(c) There are about 300 tanners who purchase generally from the factors, frequently direct from the hide markets, sometimes from the dealer referred to in (a) and sometimes from the butcher or farmer. The typical case is that in which a tanner purchases from many factors, who also obtain hides for other tanners.

Tanners are 'approved' to deal either direct with markets or with factors, but only in exceptional cases (e.g. in sparsely populated areas) will they be 'approved' to purchase from butchers or dealers, as no control can be exercised over the condition of the hide in such cases.

(4) The statistics necessary to arrange the redistribution of hides were as follows :

(a) From tanners (or factors buying for them) a statement in the following form of their purchases from *each* market and from *each* factor in a standard period (the month of March)—

Ox and heifer firsts			Ox and heifer seconds			Cow firsts		Cow seconds		Bull firsts
Over 90 lb.	60– 90 lb.	Under 60 lb.	Over 90 lb.	60– 90 lb.	Under 60 lb.	60 lb. and over	Under 60 lb.	All weights		All weights

The divisions of weight referred to are determined by the purpose to which the hide is to be put, e.g. ox and heifer firsts over 90 lb. to belting leather, &c.

(b) From factors a statement in the same form of their sales to *each* tanner and their purchases from *each* market.

(c) From Hide Markets a statement in the same form of their sales to *each* tanner and to *each* factor. A certain amount of overlapping in the information obtained from the three sources is evident, but this serves as a check on the figures provided.

By means of this information we know exactly what each tanner has been getting, as compared with what he is to get in the future, and also of the channels through which he has been getting it. We know also the hides available in each market and the channels through which they are habitually distributed. These are all the elements necessary in order to redistribute without disturbing the markets and factors. Knowing the hides available in a particular market we allocate these to tanners who are required to have the particular varieties present in that market. If the hides required by a particular tanner can be obtained from his usual markets no interference will take place, unless on grounds of shortening of transport. If the hides cannot be obtained from his usual markets, he will be allocated these from other markets, which will be selected with a view to shortening transport.

II. *Auction of Wool at Fixed Prices*

The usual method of selling imported wool in normal times is by public auction in the Liverpool or London Sale Rooms. The wool is viewed in bulk by buyers before the sale takes place and catalogues are issued describing each lot of wool. Each lot is then put up to auction in the sale room and knocked down to the highest bidder. It often happens, however, that several buyers name the same price and not one of them is prepared to go beyond it, in which case the broker chooses arbitrarily who is to get the lot in question. The trade as a whole trusts the broker in such cases not to show any favouritism and to give the unsuccessful bidders their turn later on in the sale.

Under Government control the system of public sale has been continued, but the prices of every lot are fixed beforehand by a Government valuer. As each lot is put up buyers, instead of bidding the price, hold up their hands, and the broker knocks the lot down to whomever he thinks fit, giving each a fair opportunity during the course of the sale to obtain the quota which he is permitted to buy. Merchants and dealers are not permitted to buy at the sales on their own account. Actual consumers, and brokers acting on their behalf, apply beforehand for permits to buy up to a certain quantity, and the permits issued are roughly equivalent to the total quantity of wool to be disposed of at the sale. As soon as one buyer has purchased his full quota, he drops out and takes no further part in the sale.

There are very considerable advantages in this method of public allocation at fixed prices. In the distribution of wool individual judgement of quality is of the utmost importance and samples are never entirely

representative of the bulk lots. The buyers therefore have an opportunity of knowing exactly what they are buying. The clerical work of allotting thousands of parcels is reduced to the minimum, and the invidious task of deciding which individual firm shall receive any lot where the demand exceeds the supply is performed with the greatest publicity and in such a way as to command the confidence of all concerned.

Distribution at fixed prices in the public sale rooms is also more expeditious than sale by auction to the highest bidder. In the London sale rooms under the new system as many as a thousand lots have been distributed within an hour as compared with five or six hundred under the system of competitive bidding.

The London Selling Brokers have formed a Committee to conduct the sales on behalf of the Government, and as their success in business depends on their maintaining a reputation for absolute impartiality and as the whole distribution takes place in public no opportunity for unfair discrimination or even for a suspicion of favouritism can arise.

APPENDIX 9

THE CATTLE (SALES) ORDER, 1917

Dated December 24, 1917 (No. 1336)

1. (a) No person shall on or after December 27, 1917, sell or buy or offer to sell or buy any beast for slaughter unless the beast is at the time of such sale or offer in a market.

(b) A beast shall be deemed to be bought for slaughter if it be slaughtered within 28 days of the purchase.

2. No beast fit for slaughter shall on or after December 27, 1917, be sold in any market except in accordance with the following provisions :

(a) The beast shall have been graded by a person authorized in that behalf by the Food Controller as belonging to one of the four classes mentioned in the schedule to this Order.

(b) The price shall not exceed the maximum price ascertained on the basis of such grading in accordance with the provisions of the schedule.

(c) The beast shall be sold only to a person who is authorized by the Food Controller to buy in a market beasts fit for slaughter.

3. The determination of a person authorized in that behalf by the Food Controller shall be conclusive upon the question whether a beast is fit for slaughter, and as to the weight and value of any beast.

4. All persons concerned shall comply with any directions as to the weighing of any beast or any other matter connected with the ascertainment of the maximum price payable therefor which may be given for the purposes of this Order by any person authorized in that behalf of the Food Controller.

5. The Food Controller may from time to time give directions as to the measures to be taken in relation to the ascertainment of the maximum price for any beast when he deems it is in his opinion expedient that a beast should be sold on a dead weight basis or that for any reason the maximum price should be ascertained otherwise than in accordance with the foregoing provisions of this Order.

6. For the purpose of this Order :

‘ Beast ’ includes bulls, bullocks, cows, and heifers.

‘ Market ’ shall include fair, and any other place which the Food Controller shall determine to be a market for the purposes of this Order.

This Order shall not extend to Ireland.

SCHEDULE OF MAXIMUM PRICES

Bulls, Bullocks, and Heifers

Grading	Price per cwt.
1st Grade, 56 per cent., and over	75s.
2nd Grade, 52 per cent. to 56 per cent. . . .	70s.
3rd Grade, 48 per cent. to 52 per cent. . . .	65s.
4th Grade, under 48 per cent.	as valued

Cows

Grading	Price per cwt.
1st Grade, 52 per cent. and over	70s.
2nd Grade, 46 per cent. up to 52 per cent. . . .	62s.
3rd Grade, 42 per cent. up to 46 per cent. . . .	53s.
4th Grade, under 42 per cent.	as valued

Inferior cattle and all saleable cattle manifestly diseased will be placed in the 4th Grade and valued accordingly.

The prices shown above may be modified if in the opinion of the person grading the beast it is likely to yield an unusually small or large proportion of bone.

APPENDIX 10

THE SHEEP (SALES) ORDER, 1918

Dated January 15, 1918 (No. 37)

1. (a) No person shall on or after the 28th January, 1918, slaughter any sheep unless such sheep has within the fourteen days immediately preceding the day of slaughter been sold and bought in a market.

(b) The restriction of slaughter imposed by this Clause shall not apply to :

(i) Slaughter of a sheep under the powers conferred by the Diseases of Animals Act, 1894 to 1914, or any Order made thereunder.

(ii) Slaughter of a sheep, if, in the opinion of a person authorized by the Food Controller, or the Board of Agriculture and Fisheries, or

the Board of Agriculture for Scotland, the slaughter is desirable for any exceptional reason or purpose ; or

(iii) Slaughter by a farmer for consumption in his own household of a sheep owned by him ; provided that notice of such slaughter is given within 7 days thereafter to the Food Control Committee for the area in which the farmer resides.

2. (a) No person shall on or after the 14th January, 1918, sell or buy or offer to sell or buy any sheep for slaughter unless the sheep is at the time of such sale or offer in a market.

(b) A sheep shall be deemed to be bought for slaughter if it be slaughtered within 28 days of the purchase.

3. No sheep fit for slaughter shall on or after the 14th January, 1918, be sold in any market except in accordance with the following provisions :

(a) The sheep shall have been valued by a person authorized by the Food Controller to ascertain its fair value ;

(b) The price shall not exceed the fair value so ascertained ; and

(c) The sheep may be sold only to a person who is authorized by the Food Controller to buy in a market live stock fit for slaughter.

4. For the purpose of ascertaining the fair value the person authorized under the preceding clause shall estimate the dressed weight of the carcass of the sheep, and the fair value of the sheep shall be a sum at the rate of 1s. 2½d. per lb. on the weight of the dressed carcass as so estimated together with the current market value of the skin as estimated by such person, less the sum of 1s. 6d. ; provided that in any particular case such person may determine that a sheep shall be sold on the footing that the actual dressed weight of the carcass shall be taken in lieu of the estimated weight.

5. The determination of the person authorized in that behalf by the Food Controller shall be conclusive upon the question whether a sheep is fit for slaughter and as to the weight and fair value of any sheep.

6. All persons concerned shall comply with any directions given as to the weighing of any sheep, and as to the method of sale, whether in lots or otherwise, of any sheep, and as to any other matter relating to the maximum price which may be given for the purposes of this Order by any person authorized in that behalf by the Food Controller.

7. For the purpose of this Order :

‘ Market ’ shall include fair, and any other place which the Food Controller shall determine to be a market for the purposes of this Order.

‘ Sheep ’ shall mean any ovine animal.

‘ Dressed carcass ’ shall mean the carcass without the skin, head, pluck, intestines, loose fat, feet, and shanks, the feet being cut off at the hocks and the shanks at the knees.

This Order shall not be extended to Ireland.

APPENDIX 11
CIRCULAR LETTER TO OIL SEED CRUSHERS

Ministry of Food
(Oils and Fats Branch),
St. Stephen's House,
Westminster,
S.W.1.
November 29, 1917.

GENTLEMEN,

I am directed by the Food Controller to enclose herewith copy of an Order requisitioning the output of all crude oils, oilcakes, meals, and residues produced in your seed-crushing or extracting plants.

2. This Order is made under Regulation 7 of the Defence of the Realm Regulations, which provides that in default of agreement the price shall be determined on the basis of the cost of production and the normal pre-war rate of profit, but after discussion with the Crushers' and Refiners' Advisory Committee it has been agreed in lieu thereof that Crushers and Extractors will work at the margins set out in the attached schedule.

3. In order to provide the agreed margin it is necessary to readjust the selling prices of oilseeds, nuts, and kernels, so as to make them correspond with the maximum prices of oils, oilcakes, and meals.

4. The Food Controller has therefore taken possession of all oilseeds, nuts, and kernels in the United Kingdom, including those held by Crushers and Extractors as on December 1, 1917, and will release them to manufacturers on payment of the difference between the present maximum prices and the readjusted prices, which are now being fixed in consultation with the Crushers' and Refiners' Advisory Committee and which may be varied from time to time. The readjusted prices will include delivery ex ship at the usual port or ex ship or ex rail at nearest port or station in case of transit from any other port, and are the same throughout the United Kingdom.

5. The 'agreed margin' is understood to mean a sum of money per ton of seed which, when added to the net cost of a ton of naked seed ex ship or rail at the point of delivery, represents the selling price of the resultant products net naked in bulk at the mill.

6. The above margins will be in force for a period ending March 31, 1918, and at the end of that period will again be subject to revision.

7. I am to request you to acknowledge receipt of this letter and to confirm that you are willing to accept the above basis of settlement in accordance with the recommendations of the Crushers' and Refiners' Trade Advisory Committee.

8. In the meantime I am to request you to carry on your manufacturing operations as usual and to continue dealing with your unsold products and

carrying out your existing contracts pending further instructions and subject to the necessary adjustment with the Ministry of Food at a later date.

I am, Gentlemen,
Your obedient Servant,
(Sgd.) ALFRED MANSFIELD,
Director.

SCHEDULE

Babassu seed	60s.
Castor seed	50s.
Copra	60s.
Cotton seed	50s.
Gingelly (Sesame seed)	70s.
Ground nuts (undecorticated)	50s.
" " (decorticated)	60s.
Hemp seed	50s.
Illipe	60s.
Kapok seed	50s.
Linseed	45s.
Mowrah seed	70s.
Niger seed	45s.
Palm kernels	70s.
Poppy seed	60s.
Rapeseed	60s.
Shea nuts	60s.
Soya beans	55s.
Sunflower seed	50s.

STATUTORY RULES AND ORDERS

Defence of the Realm

MINISTRY OF FOOD

The Seeds, Nuts, and Kernels (Requisition) Order, 1917, dated November 1917, made by the Food Controller under the Defence of the Realm Regulation

In exercise of the powers conferred upon him by the Defence of the Realm Regulations, and of all other powers enabling him in that behalf the Food Controller hereby orders as follows :

1. (a) In pursuance of Regulation 2 B of the Defence of the Realm Regulations, the Food Controller gives notice that he hereby takes possession of all oleaginous seeds, nuts, and kernels of the varieties mentioned in the Schedule of this Order which are in the United Kingdom on the 1st December, 1917.

(b) This Clause shall not apply to seeds, nuts, and kernels in the hands of a person who at the close of business on the 30th November, 1917, does not hold more than 5 tons of any one variety.

2. (a) In pursuance of Regulation 2 F of the Defence of the Realm Regulations, the Food Controller requires all persons owning or having power to sell or dispose of any oleaginous seeds, nuts, and kernels of the varieties mentioned in the said Schedule which may arrive in the United

Kingdom after the 1st December, 1917, to place the same at the disposal of the Food Controller and deliver the same to him or to his order.

(b) Any Arbitrator to act for the purpose of this Clause shall be appointed by the Lord Chief Justice of England.

3. All persons concerned shall, on or before the 8th December, 1917, furnish to the Secretary, Ministry of Food, Palace Chambers, S.W.1, a return showing :

(a) the amount of seeds, nuts, and kernels mentioned held by him at the close of business on the 30th November, 1917 ;

(b) the amount of such seeds, nuts, and kernels afloat and shipped to the United Kingdom to him or to his order on the 30th November, 1917 ;

(c) the amount and quality of seeds, nuts, and kernels purchased to be shipped to the United Kingdom and not shipped on the 30th November, 1917 ; and

(d) the quantity sold and unsold in each case ;

and shall furnish such other particulars as may from time to time be required by or under the authority of the Food Controller.

4. Infringements of this Order are offences against the Defence of the Realm Regulations.

5. This Order may be cited as the Seeds, Nuts, and Kernels (Requisition) Order, 1917.

By order of the Food Controller.

(Signed) W. H. BEVERIDGE,

Second Secretary to the Ministry of Food.

November 1917.

SCHEDULE

Babassu seed	Linseed
Castor seed	Mowrah seed
Copra	Niger seed
Cotton seed	Palm kernels
Gingelly (Sesame seed)	Poppy seed
Ground nuts (uncorticated)	Rapeseed
" " (decorticated)	Shea nuts
Hemp seed	Soya beans
Illipe	Sunflower seed
Kapok seed	

APPENDIX 12

JOINT EXECUTIVE FOR VEGETABLE OILS AND OIL SEEDS MEMORANDUM OF AGREEMENT

1. There shall be set up a Joint Executive for Vegetable Oils and Oil Seeds representing the United Kingdom and France (hereinafter called the Oil Seed Executive) for the purpose of controlling the purchase and supply of the scheduled articles from British and French territories and other countries Allied or Neutral, of co-ordinating control of selling prices

in the United Kingdom and France, of allocating the scheduled articles in agreed proportions between the two countries and of selling them to third parties Allied or Neutral.

2. The Oil Seed Executive shall consist of an equal number of representatives of the United Kingdom and France, and, subject to the authority of the respective Governments, shall have full power to act on behalf of those countries.

3. The articles shall be oleaginous nuts, seeds, and kernels and vegetable oils and fats, but the Oil Seed Executive may in agreement with the Inter-Allied Meat and Fats Executive add to the schedule any Animal Oils and Fats (including fish and marine animal oils) or their products that appear to be most conveniently dealt with by the Oil Seed Executive.

4. Subject to the limits and conditions of the financial resources placed at the disposal of the Oil Seed Executive by the British and French Governments, the Oil Seed Executive shall have full power to meet the requirements of the two Allies by the purchase and allocation of the scheduled articles and to make arrangements for the transport of such articles with the competent Departments of the respective Governments.

5. No sale shall be made by the Oil Seed Executive to Neutral countries which is contrary to the blockade policy pursued by the Allied countries.

6. The Oil Seed Executive shall as soon as possible draw up an approximate estimate of the supplies of each of the scheduled articles required to be imported by France and the United Kingdom over a stated period. The proportion which the requirements of each Ally bears to the sum of the requirements of the two Allies for each article shall for the purposes of this convention be termed the ascertained proportion for each country.

A separate ascertained proportion may be specified for any single country of origin or for any one of the scheduled articles.

The total purchases shall be allocated as nearly as possible on the basis of the ascertained proportions provided that military requirements shall have preference over civilian requirements.

7. The ascertained proportions may be varied by mutual consent from time to time having regard to the total stocks of each article held by each of the Allied countries, and in accordance with the relative urgency of their needs and with the amount of tonnage at their disposal.

8. The Oil Seed Executive shall draw up a programme of purchases to be made in the various countries of origin, having regard to the exportable surplus available in each country and to the importance of purchasing in countries which offer the best transport facilities.

9. The total cost of purchases of each of the scheduled articles shall be averaged in each country of origin subject to the necessary allowances being made for grade and quality, and final adjustment shall take place at an annual date to be fixed by the Oil Seed Executive. The principle of sharing profits and losses on the basis of f.o.b. prices is accepted by the two Governments subject to satisfactory financial arrangements being

settled in a separate memorandum to be drawn up by the Oil Seed Executive for the approval of the Financial Authorities of the two Allied Countries.

10. Each Ally shall have a claim to priority of allocation in the case of purchases for which he is providing the credit, but for the purpose of economizing tonnage a provisional character only shall be attributed in the first instance to such allocation. Any allocation made by the Oil Seed Executive shall determine only the financial and tonnage obligations of each Ally, but not the actual destination of the goods, which may be varied by mutual agreement to any extent provided that such variation shall not finally benefit any Ally at the expense of the other.

11. Subject to any general arrangements as to shipping or finance made between the competent departments of the two Allied Governments, the transportation of and payment for the supplies of the scheduled articles for each Ally shall be undertaken by that Ally.

12. The Oil Seed Executive shall be furnished with full information as to production, stocks, and consumption of the scheduled articles and will be empowered by the respective Governments to obtain such other information as may be necessary for the performance of their functions.

13. For the purpose of finance orders to be placed by or on behalf of the Oil Seed Executive will fall into five groups :

- (1) Orders in United States.
- (2) „ „ Canada.
- (3) „ elsewhere in the British Empire.
- (4) „ in French Colonies.
- (5) „ in other Allied Countries or in Neutral Countries.

In the event of any orders being placed on behalf of the Oil Seed Executive by His Majesty's Government or by any British Government Department or being taken over by the Oil Seed Executive from orders already so placed, the following procedure will be followed :

In the case of purchases made on behalf of the French Government under groups (1) and (2) the French Government will undertake to place dollars at the disposal of the British Treasury in New York at least seven days before the relative payments fall due and the British Treasury will be notified by the Oil Seed Executive, these dollar transfers being additional to and independent of any other financial agreements between the Governments concerned.

Where purchases are to be made on behalf of the French Government under groups (3) and (5) the proposed purchases will be referred to the British Treasury through the Commission Internationale de Ravitaillement before they are made and will be contingent on a statement being received from them that arrangements have been made with the French Government for provision of funds either out of British credits or for reimbursement in dollars or in some other way.

14. The French Government having drawn the attention of H.M.

Government to the difficulties caused by the present disparity in the prices of raw materials in the two countries, it is agreed that the Oil Seed Executive shall examine the causes of such disparity with a view to seeing how far it will be practicable to remove it.

15. This agreement is subject to cancellation at three months' notice by either party.

MEMORANDUM

In connexion with the above agreement the delegates of the French Government desire to draw attention to the particularly serious situation existing in France on the date hereof owing to the extreme shortage of vegetable oils and oilseeds.

APPENDIX 13

MINISTRY OF FOOD

Costings Department

OILS AND FATS

Memorandum of Instructions to the District Supervising Accountants for ascertaining costs of :

- (a) *Crushing* (or *Extracting*)
and (b) *Refining*.

(a) *CRUSHING PROCESS :*

The following is an outline of statistics to be furnished from the cost investigations of crushing processes relating to :

- (1) Palm kernels,
- (2) Ground-nuts,
- (3) Cotton seed,
- (4) Linseed,

for the following periods :

- (a) The last three pre-war years,
- (b) The last two completed financial years.

The statistics for each class of seed to be stated separately.

- | | | | | |
|--|-------------|----------|----------|----------|
| I. <i>Purchase of seeds at cost ex quay (port of entry)</i> | <i>Tons</i> | <i>£</i> | <i>:</i> | <i>:</i> |
| Average price per ton. | | | | |
| II. <i>Carriage and other inland transport on seed.</i> | <i>Tons</i> | <i>£</i> | <i>:</i> | <i>:</i> |
| Average cost per ton. | | | | |
| III. <i>Adjustment for stocktaking.</i> | <i>Tons</i> | <i>£</i> | <i>:</i> | <i>:</i> |
| Increase or decrease in stocks at end of each period investigated. | | | | |

IV. <i>Quantity of seed crushed.</i>	Tons	£	:
Average price per ton.			
V. <i>Financing of stocks.</i> (See NOTE 2.)			
Average cost per ton.			
VI. <i>Crushing wages (direct).</i>	Tons	£	:
Average per ton.			
VII. <i>General charges :</i>			
(a) Process and general charges detailed.			
(b) Selling charges detailed (barrels, lightering, filling, and delivering, &c.).			
(c) Average process and general charges per ton.			
(d) Average delivering and selling charges per ton.			
A distinction to be made between (a) and (b) if possible of ascertainment.			
VIII. <i>Total crushing and general charges per ton.</i>			
Carriage and inland transport as above	£	:	
Financing of stocks do.	£	:	
Direct wages do.	£	:	
Process and general charges do.	£	:	
Selling charges do.	£	:	
IX. <i>Total quantity of oil and cake obtained.</i>			
(a) Quantity of oil obtained.			
(b) Quantity of cake obtained.			
(c) Total quantity of oil and cake obtained per ton.			
(1) Quantity of oil per ton.			
(2) Quantity of cake per ton.			
X. <i>Total sales—crude oil and cake.</i>	Tons	£	:
(a) Crude oil.			
(b) Cake.			
(c) Total receipts from 1 ton of seed.			
(d) Average selling price of cake (per ton of cake sold).			
(e) Average selling price of oil (per ton of oil sold).			
(1) Value of oil obtained from 1 ton of seed.			
(2) Value of cake obtained from 1 ton of seed.			
XI. <i>Net profit.</i>			
XII. <i>Net profit per ton crushed.</i>			
Arrived at thus :			
Total receipts from one ton of seed	£	:	:
Less cost of raw seed per ton	£	:	:
and total crushing and general charges per ton	£	:	:
Leaving net profit per ton			

(b) REFINING PROCESS.

The following is an outline of statistics to be furnished from the cost investigations of refining processes relating to :

- (1) Palm oil (crude),
- (2) Ground-nuts oil (crude),
- (3) Cotton-seed oil (crude),
- (4) Linseed oil (crude),

for the following periods :

- (a) The last three pre-war years,
- (b) The last two completed financial years.

The statistics for each class of crude oil refined to be stated separately.

I. <i>Purchase of crude oil at cost</i>	<i>Tons</i>	<i>£</i>	<i>:</i>	<i>:</i>
Average price per ton.				

II. <i>Carriage and other inland transport on crude oil</i>	<i>Tons</i>	<i>£</i>	<i>:</i>	<i>:</i>
Average cost per ton.				

III. <i>Adjustment for stocktaking.</i>	<i>Tons</i>	<i>£</i>	<i>:</i>	<i>:</i>
Increase or decrease in stocks at end of each period investigated.				

IV. <i>Quantity of crude oil refined.</i>	<i>Tons</i>	<i>£</i>	<i>:</i>	<i>:</i>
---	-------------	----------	----------	----------

V. <i>Financing of stocks.</i> (See NOTE 2.)				
Average cost per ton.				

VI. <i>Refining wages</i> (direct).	<i>Tons</i>	<i>£</i>	<i>:</i>	<i>:</i>
Average per ton.				

VII. *General charges :*

- (a) Process and general charges detailed.
- (b) Selling charges detailed (barrels, lighterage, filling, and delivering and brokerage).
- (c) Average process and general charges per ton.
- (d) Average delivering and selling charges per ton.

A distinction to be made between (a) and (b) if possible of ascertainment.

VIII. *Total refining charges per ton.*

Carriage and inland transport as above	<i>£</i>	<i>:</i>	<i>:</i>
Financing of stocks do.	<i>£</i>	<i>:</i>	<i>:</i>
Direct wages do.	<i>£</i>	<i>:</i>	<i>:</i>
Process charges do.	<i>£</i>	<i>:</i>	<i>:</i>
Selling charges do.	<i>£</i>	<i>:</i>	<i>:</i>

IX. *Total quantity of refined oil and by-products obtained.*

- (a) Quantity of refined oil obtained.
- (b) Quantity of by-products obtained.
- (c) Total quantity of refined oil and by-products obtained per ton.
 - (1) Quantity of refined oil.
 - (2) Quantity of by-products.

X. *Total sales—refined oil and grease (including all by-products).*

- (a) Refined oil.
- (b) By-products.
- (c) Total receipts obtained from 1 ton of crude oil.
- (d) Average selling price of by-products (per ton sold).
- (e) Average selling price of refined oil (per ton sold).
 - (1) Value of refined oil obtained from 1 ton of crude oil.
 - (2) Value of by-products obtained from 1 ton of crude oil.

XI. *Net profit.*XII. *Net profit per ton refined.*

Arrived at thus :

Total receipts from 1 ton crude	£	:	:
Less cost of crude oil per ton	£	:	:
and total refining charges per ton	£	:	:
Leaving net profit per ton			

GENERAL NOTES

1. Unless otherwise stated the unit will be taken as one ton of seed crushed for the crushing costs, and one ton of crude oil refined for refining costs.

2. Charges for Bank Interest, &c., incurred in purchasing seed will be stated under 'Financing of Stocks'.

3. Where crushing and refining are carried on by the same proprietors the separate costs for each process will possibly not be kept apart. In such cases the immediate purpose of the investigation will be served if an estimated allocation can be made between the costs for each process and the basis of such estimate verified. Where the crude oil is obtained by extraction the relative costs will be ascertained as indicated for crushing.

4. A further apportionment will then be necessary to allocate the various costs between the different classes of seed crushed or crude oil refined. If an estimated allocation has to be made the basis of the estimate should also be verified.

5. Sales should be stated net, i.e. after deduction of carriage, &c., charged to customer.

6. Where any charges are taken into cost on a percentage basis or

otherwise, the total amount so charged should agree with the actual amount incurred as shown in the financial books.

7. The following items should be excluded in arriving at cost :

- (1) Income Tax and Excess Profits Duty.
- (2) Interest on capital, loans, and debentures.
- (3) Expenses of raising capital, loans, and any other item of expenditure relating to capital.

8. A summary of the financial accounts and balance-sheet for each of the years investigated should accompany the report. These accounts should show *inter alia* the following items of general charges :

- (1) Bad debts written off or reserved for.
- (2) Commissions and Brokerage.
- (3) Depreciations.
- (4) Repairs and Maintenance.
- (5) Rent or charge in lieu thereof where property owned (in latter case charge not to exceed Sch. A. Assessment).
- (6) Directors' or Partners' Remuneration.
- (7) Reserves or sinking funds for Redemption of Leases, &c.
- (8) Any large item of expenditure of a non-recurring or exceptional nature charged as a working expense.
- (9) Discount and Interest other than interest on fixed loans, capital, and debentures ;

and should also show the figures :

- (1) As shown by the books.
- (2) As adjusted in terms of above memo.

A print of the Directors' Report and Accounts for the financial periods under review should also be furnished.

APPENDIX 14

LETTER FROM LORD RHONDDA TO THE SECRETARY OF THE MINISTRY OF FOOD ON STATE PURCHASE OF THE WHOLESALE MILK TRADE

Llanwern,
Newport, Mon.
May 21, 1918.

MY DEAR WINTOUR,

I return the papers relating to Major Astor's report on the control of the wholesale milk trade, which I received yesterday. I have not made any note on the file, for, having regard to the arrangements made with the Prime Minister and Mr. Clynes under which the latter is responsible for the work of the Food Ministry during my convalescence and until I return to the Office, I feel that I should not express any opinion that might prejudice any decision that he might wish to come to. You might,

however, convey to him my personal view that, while I think the control of the wholesale milk trade should be taken in hand without delay and on the lines suggested in the scheme, I should hesitate to commit myself to State Purchase without first obtaining the sanction of the Cabinet. I cannot help thinking, however, that the distribution of milk, like the distribution of many other articles of consumption, lends itself to communal or State handling, and I think it would be desirable, and could not, as far as I can see, be in any way prejudicial, to obtain options or reasonable terms for purchase before the control was exercised.

I think it is to be regretted that so much publicity has been given in the Press to the proposal of State Purchase before the matter came before the Ministry of Food for decision.

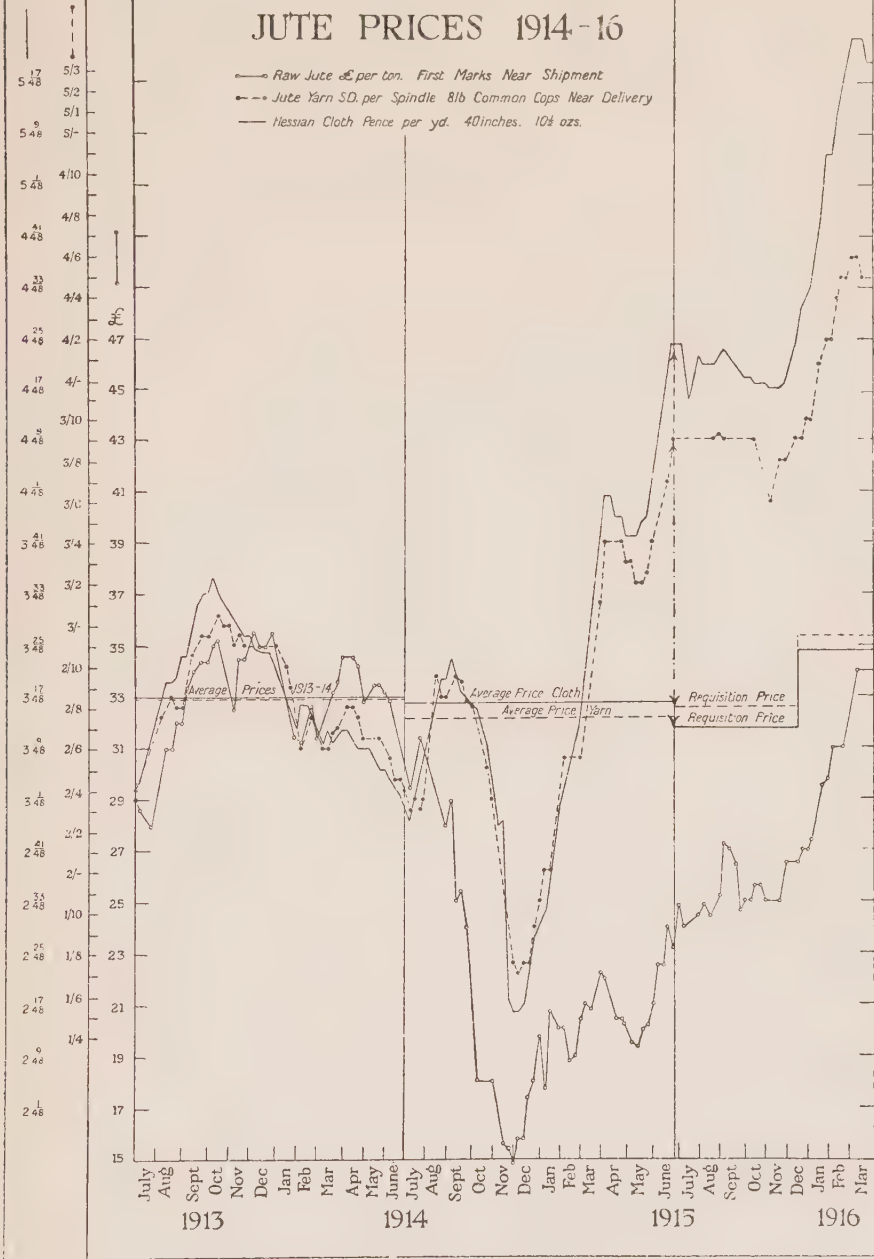
I am looking forward to seeing you on Friday if that day suits you.

Yours very faithfully,

(Sgd.) RHONDDA.

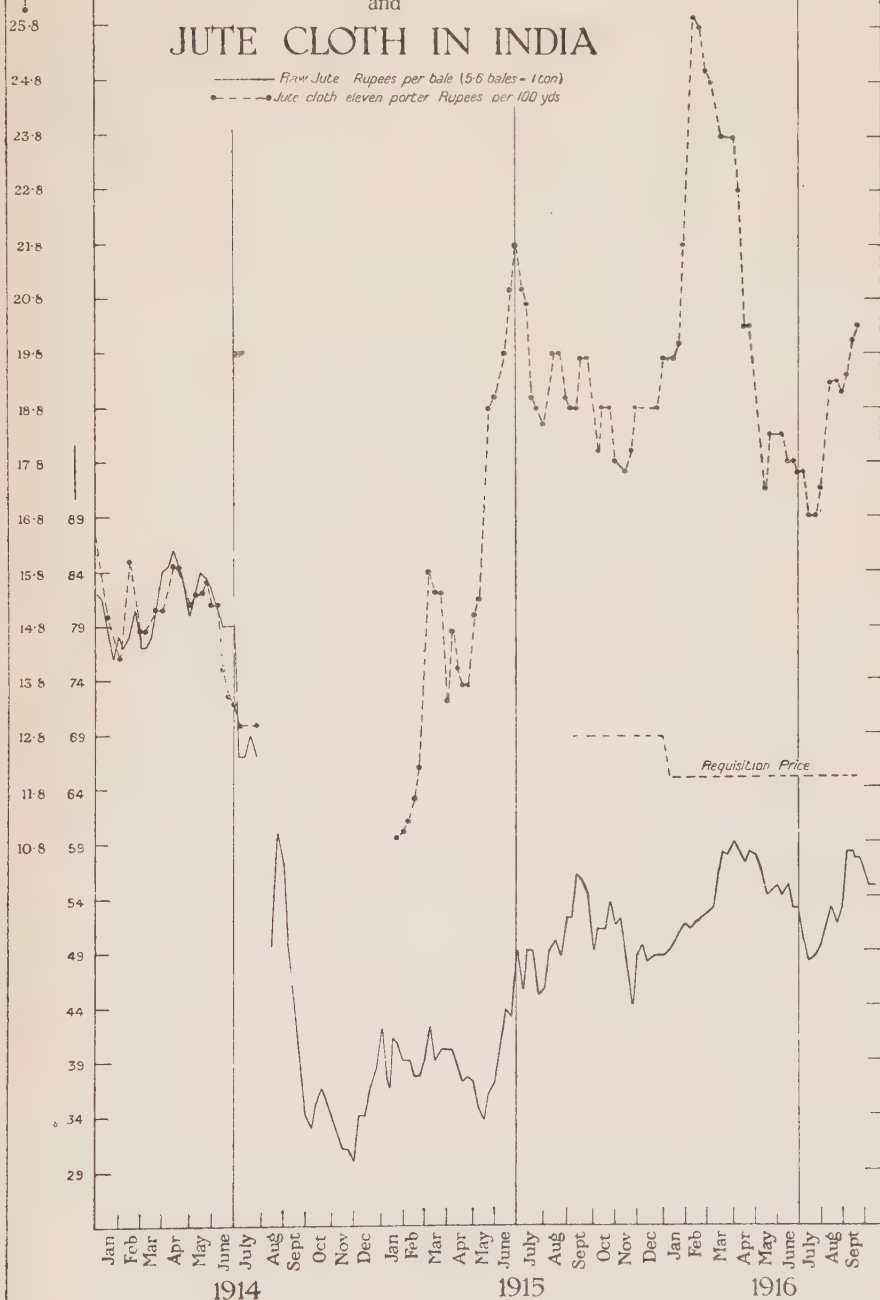
JUTE PRICES 1914-16

— Raw Jute £ per ton. First Marks Near Shipment
 - - - Jute Yarn S.D. per Spindle 8lb Common Cops Near Delivery
 — Hessian Cloth Pence per yd. 40 inches. 10½ ozs.



PRICES OF RAW JUTE and JUTE CLOTH IN INDIA

— Raw Jute Rupees per bale (5.6 bales = 1 ton)
- - - Jute cloth eleven porter Rupees per 100 yds



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